More than just a POS, you think

P5000

User's MANUAL

aXon

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Chapter 1.

Caution.

Product quality guarantee

POSBANK warrants our hardware POS terminal product and its parts against defects in materials and workmanship under normal use for a standard period of two (2) year from the date of original purchase.
During this period, POSBANK will repair or replace a defective product or part without charge for parts and labor to the purchaser.

The 1st year is free workmanship and new or refurbished replacement parts with one-way freight cost born by POSBANK and customer shall be responsible for send shipping charge.
2nd year is also no charge for workmanship and parts but limited warranty with round-way freight cost born by customer.
Products outside of the warranty period or scope shall be diagnosed at customer's expense.
POSBANK will require customer's repair and payment authorization to proceed with any repairs.

Copyright

This publication, including all photographs, illustrations and software, is protected under international copyright laws, with all rights reserved.
Neither this manual, nor any of the material contained herein, may be reproduced without written consent of the author.

Disclaimer

The information in this document is subject to change without notice.

The manufacturer makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose.

The manufacturer reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of the manufacturer to notify any person of such revision or changes.

Trademark recognition

All product names used in this manual are the properties of their respective owners and are acknowledged.

Federal communications commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected.

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device.
Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Caution for safety

- Specifications are subject to change without notice.
- Avoid exposing the product to direct sunlight and do not use the product near area of high moistures.
- Do not block the unit's ventilation openings.
- Do not attempt to disassemble or modify this product by yourself, as doing so may expose you to an electric shock.
- All servicing should be performed by qualified personnel and should confirm to all local codes.

- If and abnormal power conditions or blackouts occur during operation, disconnect unit at the AC source immediately.
- Once normal power is restored, reconnect the AC source.
- To avoid unit failure or intermittent operation, check power and other I/O cables are connected correctly.
- Always unplug the power cord from the AC outlet before cleaning the product. Use a soft cloth to clean the product. Do not use solvents or abrasives and do not spray or pour any liquid directly onto product's screen or case.

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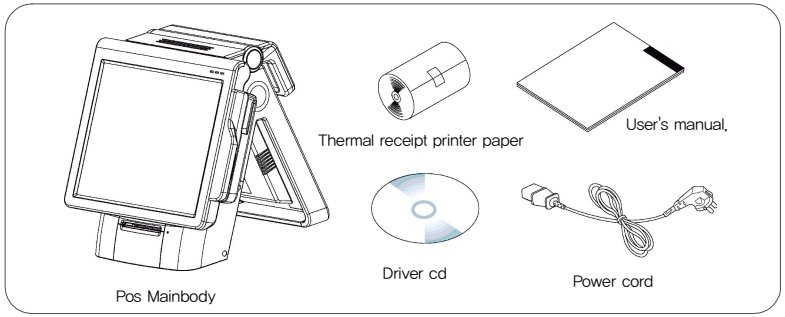
Chapter 2.

Product overview

Check the contents

1. Firstly, check the user manual on the shown packing list as written contents
2. Basically, POSBAK provide POS main body, power cord, User's guide, Driver CD, thermal receipt printer roll paper however, we are not provided roll paper if our POS is not integrated with printer.

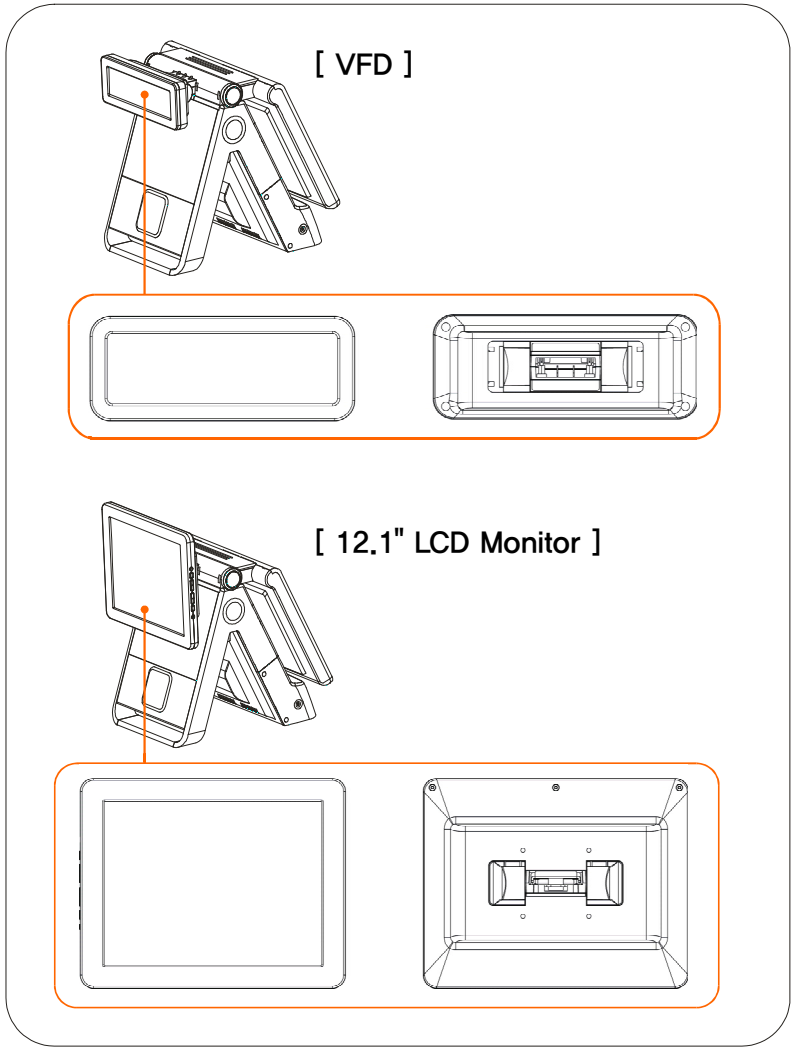


※ You can download user manual and driver CD from our (www.posbank.com) home page.

Preparation before installation

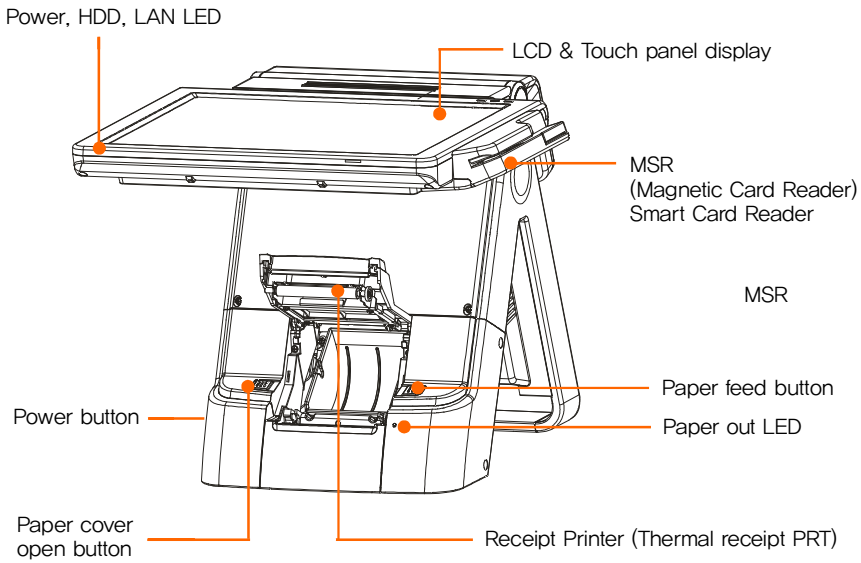
1. Firstly, remove the touch protection flim on the screen. It may cause malfunction if you do not remove the flim.
2. Installation the options first, in case you like to install option device such as VFD or rear display device.

3. Optional Parts

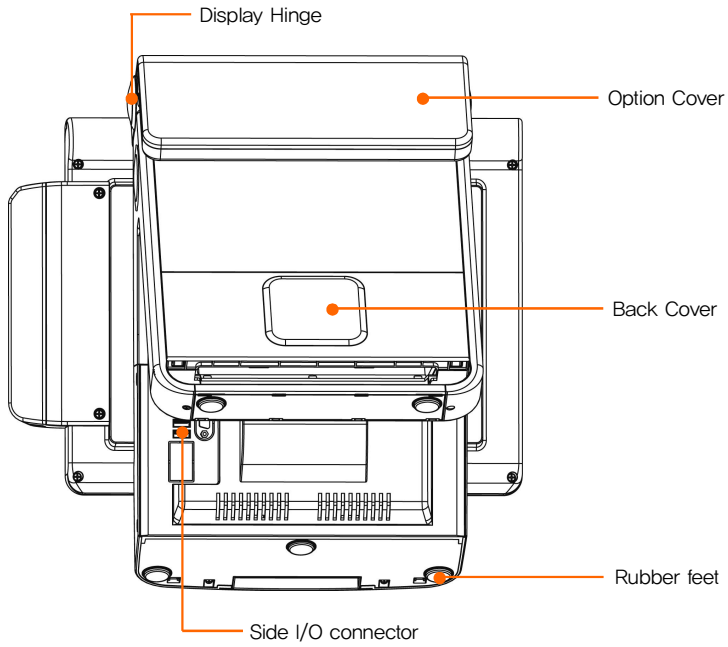


Each part of main body name

FRONT VIEW

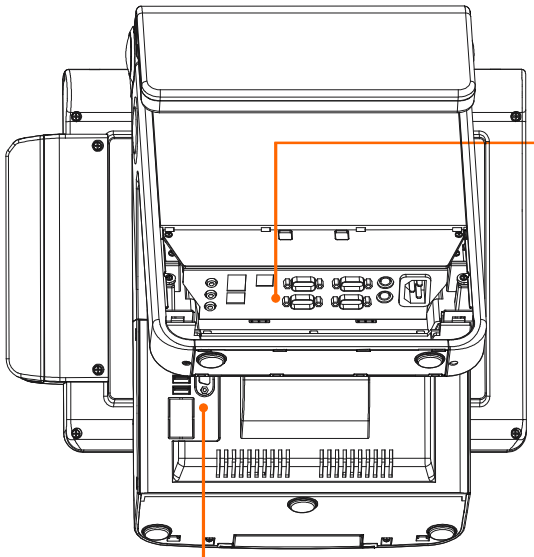


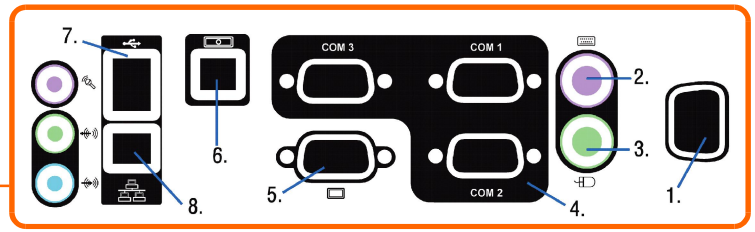
REAR VIEW



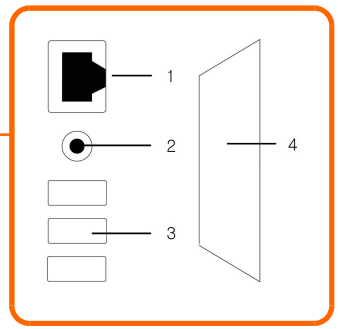
Each part of main body name

Rear Connectors I/O





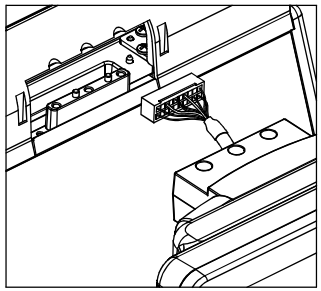
1. AC IN Power Connector
2. PS/2 Keyboard Connector
3. PS/2 Mouse Connector
4. COM1, COM2, COM3 port
5. Exterior Monitor Connector or DVR port (option))
6. Cash Drawer Connector
7. USB Connector
8. LAN Connector



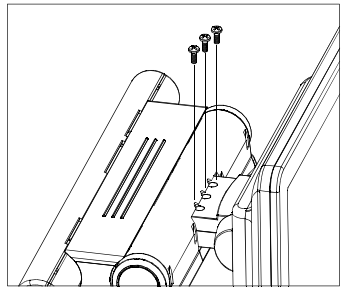
1. Multimedia display Ethernet port(option)
2. Multimedia display Speaker Out port(option)
3. USB Connector (3 port)
4. Parallel port (option)
   Parallel port will be attachable if there is not integrated printer of POS product

Option parts installation

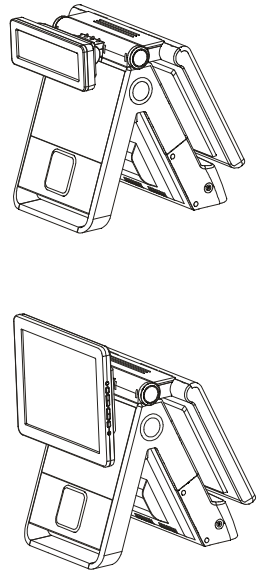
Customer Display(VFD) & 2nd Monitor Installation



Connecting cable to
main body



Connected VFD(second Display)
and hinge by screw



1. VFD test method: It is succeed installed O/S when display the basic picture on the screen after re-power POS product
2. 2nd monitor test method: There is no problem in installation if display initial screen is OK after re-booth
3. VFD or second displays are used by connecting interior of COM4 port
   - POSBANK will be providing necessary information in order to operate VFD and POS program.
   - VFD is only support English and EPSON mode is available.

※ You should set com4, bit/sec(b):9600, DataBit(D):8, parity(P): nothing, flow-control in no in application program Environment setting and it operate properly.

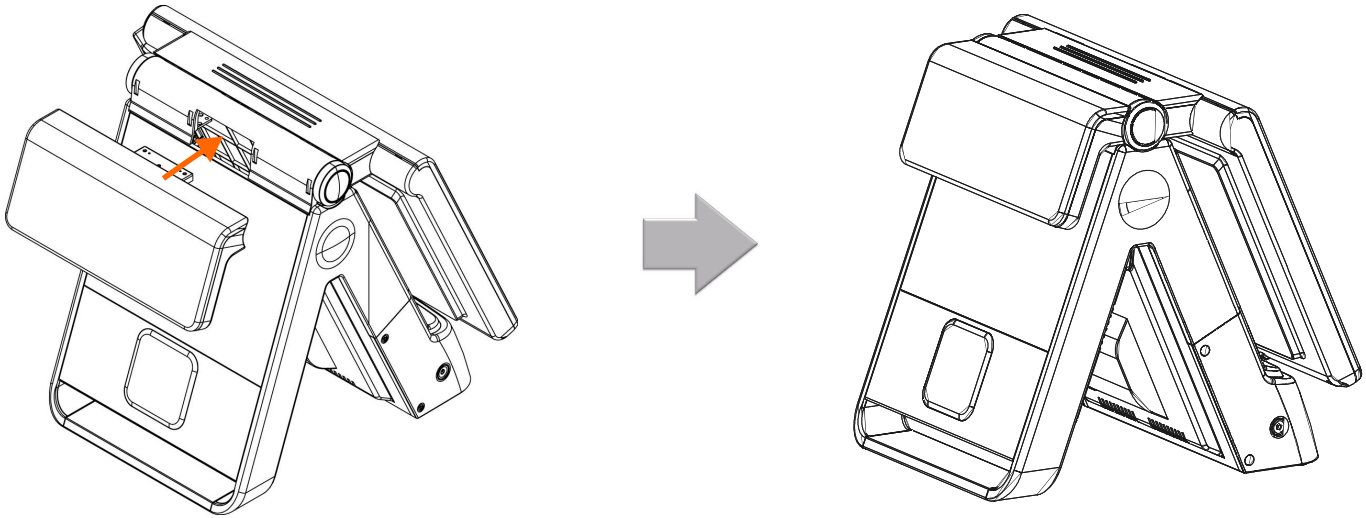
Caution;

To install or withdraw VFD(2nd Monitor), power must be switch off.

Dummy cover installation

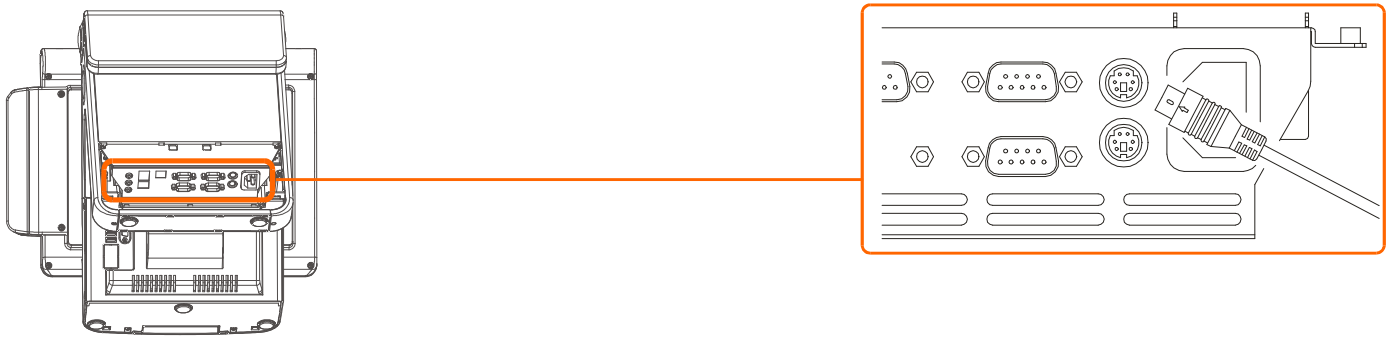
Dummy cover installation

* POSBANK basically provide mostly Dummy cover

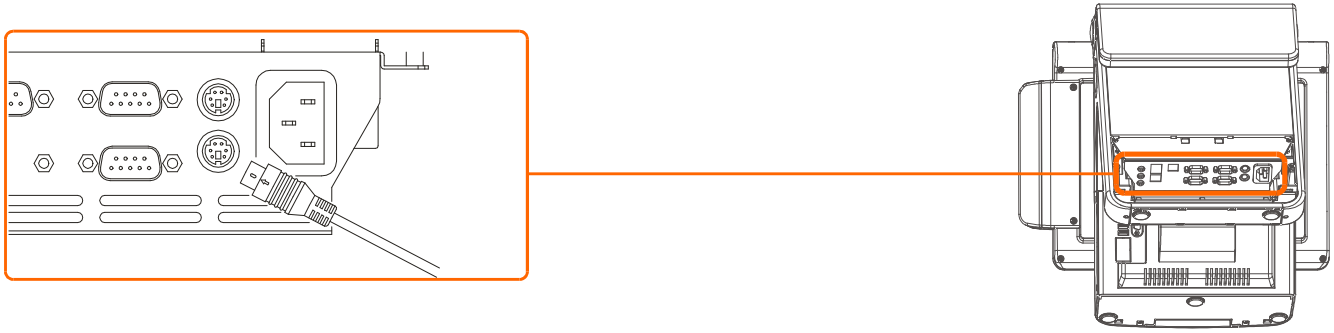


Connects keyboard with mouse

Connect keyboard



Connect mouse



※ Warring : The system can be failed if you input wrong port with keyboard and mouse

Connecting printer

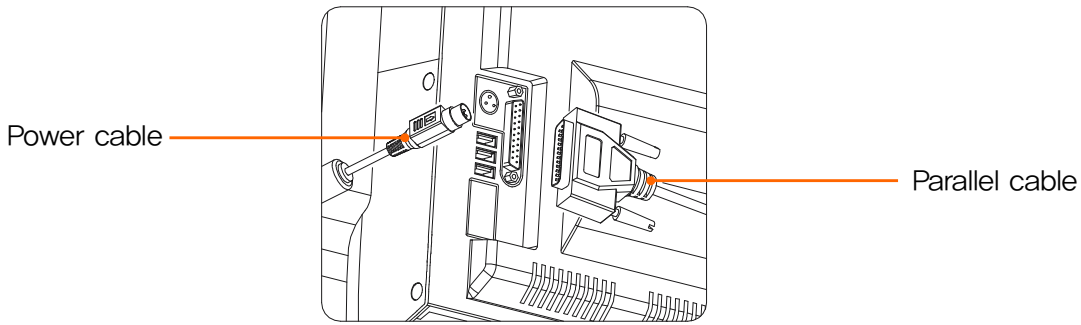
Connecting printer

Connecting right interface with each of serial printer, Parallel, USB port.

※ If you purchased our POS model that printer is not embedded this device can connect parallel port and 24V (2.3A) printer power to side I/O.

Warring : You should check the printer whether it uses it is does not support this specification.
You should use other adapter.

Connecting parallel printer



Side I/O

Connecting barcode scanner

Connecting barcode scanner

Our barcode scanner usually uses PS2/2 USB and serial type of interface

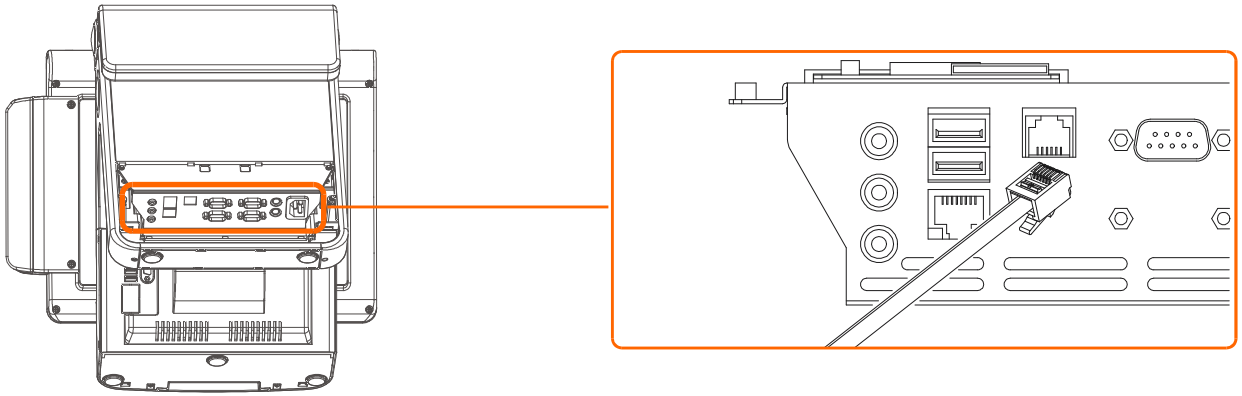
You should adjust setting value to the system if scanner supports serial interface type.

– Adjust setting value by manually in case, scanner is set auto mode.

Connecting cash drawer

Connecting cash drawer

Cash drawer connector (RJ11) is located in the rear of I/O, this connector (RJ11) supports 24V Solenoid type Cash drawer is connected to internal printer of mother board. Our POS is not operating properly if there is no integrated printer in the POS product. In this case, connect cash draw port to the exterior printer port

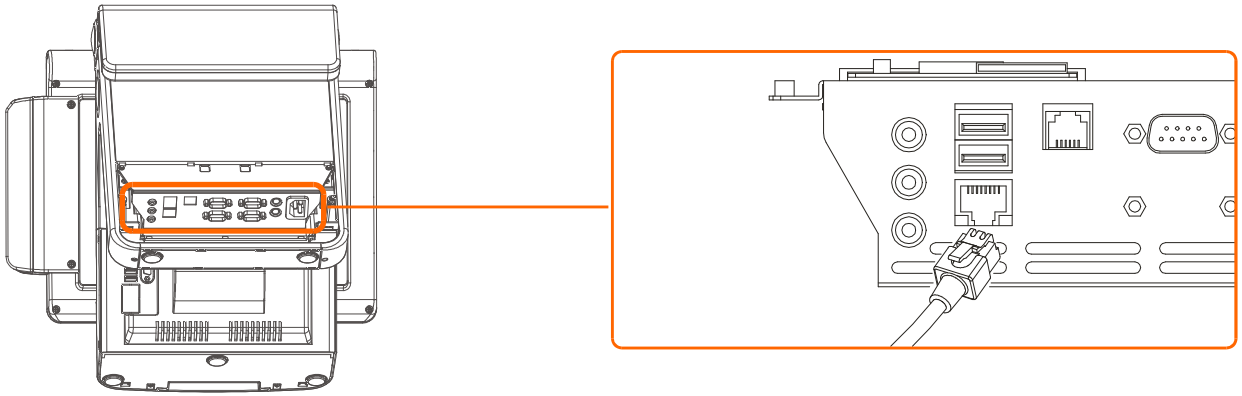


Connecting ethernet

Connecting ethernet

Ethernet port is located in the rear of I/O, this Ethernet support 10/100/1000Mbps speed, and connector type is RJ45.

LAN LED will be lighting in case line is connected properly.



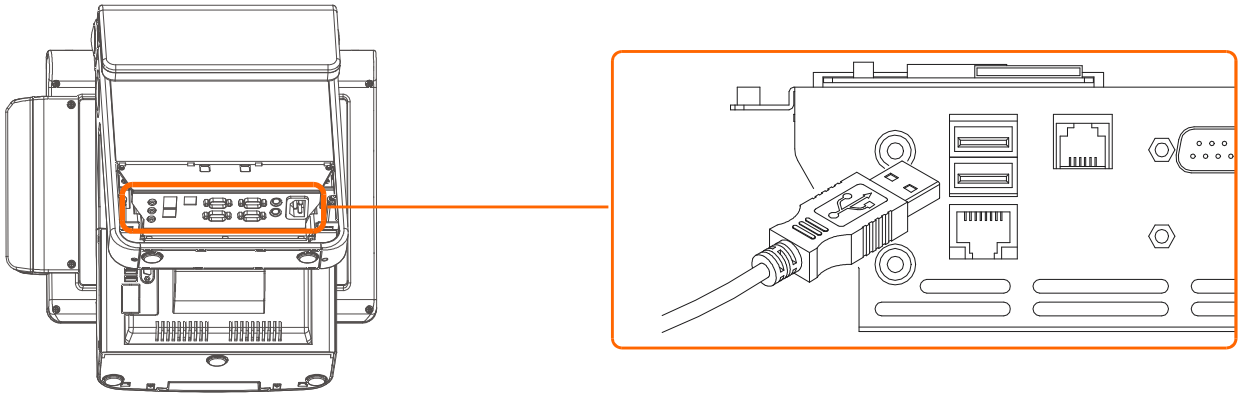
Connecting USB device

Connecting USB device

There are 2 USB ports in the rear I/O, and 3 USB ports in the side I/O.

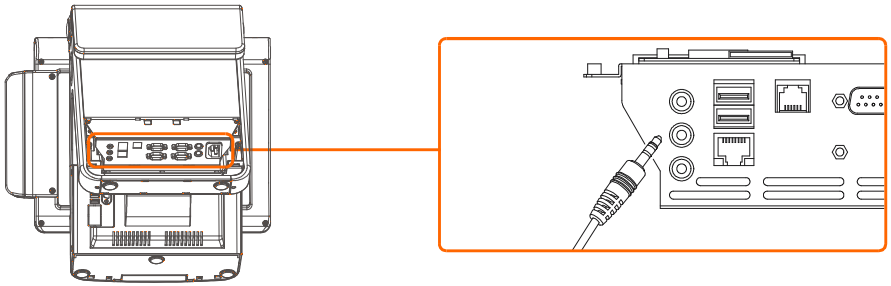
There is a case that you should install other driver software in USB device.

Our USB device can be malfunctioned if connected lots of line at once. In this case, it is better to use USB hub by exterior adapter. Some of USB device can be delay recognize according to USB device.

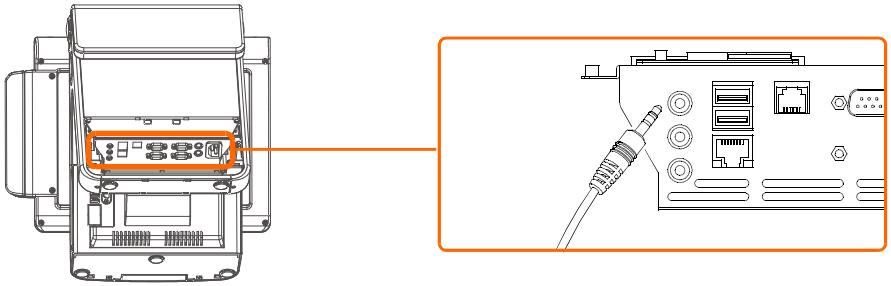


Connecting Speaker and mic

Connecting microphone



Connecting speaker



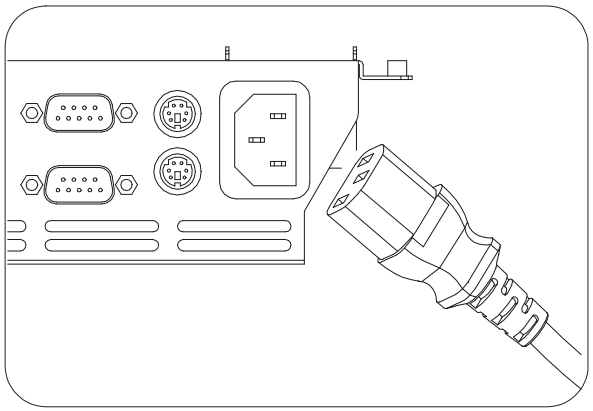
Connecting power cable

Connecting power cable

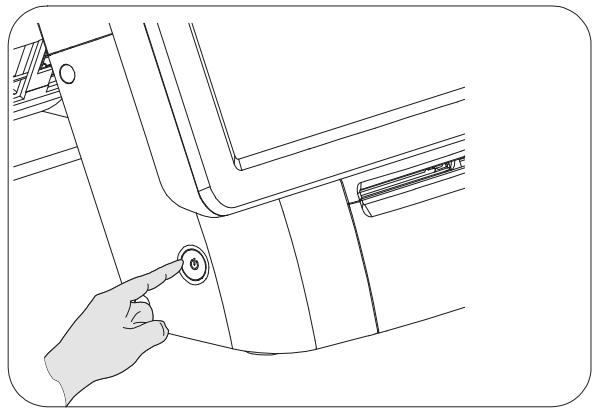
Our POS support 110V ~240V.

There is no transfer power switcher.

– It must be grounding cable when you connect A/C power cord



1. Connect power cord to the rear of I/O

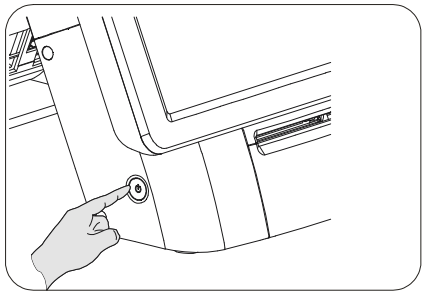


2. Press ON button that is left side positioned

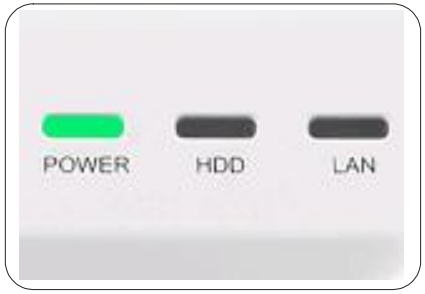
Turn the POS ON

Turn the POS on

Power on peripheral device first before POS switched on.
POSBANK logo will be display or self test on the screen after power on.
Check window boot whether it is operating properly.



1. Press ON button that is left side positioned



2. Power LED is lighting

3. Start window p/g

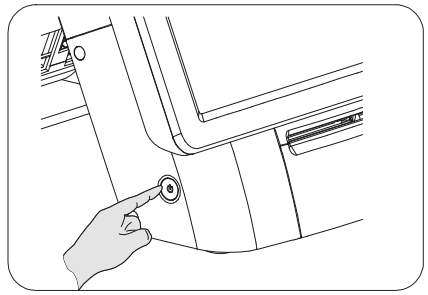
Turn the POS OFF

Turn the POS off

Firstly, turn off Windows for the safety of device.
Close application program before turning off Windows.

1. Click the computer off at initial windows mode

2. Click button (turn off)



※ Press power switch if you like to power off by power switcher

Introduction system driver

Support OPOS driver

O/S is support WIN XP

You can download it from our website if you like to get the latest OPOS version

Support peripheral device, Cash drawer, CDP, MSR (Magnetic Card Reader), Printer

OPOS driver installation route

Installation driver for POS terminal. (Description of folder contents)

1. CHIP SET DRV installation
2. VIDEO (VGA) DRV installation
3. TOUCH DRV installation
4. AUDIO DRV installation method
5. LAN DRV installations
6. User’ s Manual

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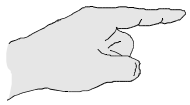
Chapter 3.

BIOS Setup Utility

Bios setup utility

This motherboard supports a programmable firmware chip that you can update using the provided utility.
Use the BIOS Setup program when you are installing a motherboard, reconfiguring your system, or prompted to "Run Setup."
This section explains how to configure your system using this utility.
Even if you are not prompted to use the Setup program, you can change the configuration of your computer in the future.
For example, you can enable the security password feature or change the power management settings.
This requires you to reconfigure your system using the BIOS Setup program so that the computer can recognize these changes and record them in the CMOS RAM of the firmware hub.
The firmware hub on the motherboard stores the Setup utility. When you start up the computer, the system provides you with the opportunity to run this program.
Press 〈Del〉 during the Power–On–Self–Test(POST)toenter the Setup utility; otherwise, POST continues with its test routines.
If you wish to enter Setup after POST, restart the system by pressing 〈Ctrl+Alt+Delete〉, or by pressing the reset button on the system chassis.
You can also restart by turning the system off and then back on. Do this last option only if the first two failed.
The Setup program is designed to make it as easy to use as possible.
Being a menu–driven program, it lets you scroll through the various sub–menus and make your selections from the available options using the navigation keys.



- The default BIOS settings for this motherboard apply for most conditions to ensure optimum performance. If the system becomes unstable after changing any BIOS settings, load the default settings to ensure system compatibility and stability. Select the Load Optimized Defaults from the BIOS menu screen.
- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.

Bios setup utility

You should be careful in BIOS change and it may cause malfunction or break-up in case you change it without full comprehension.

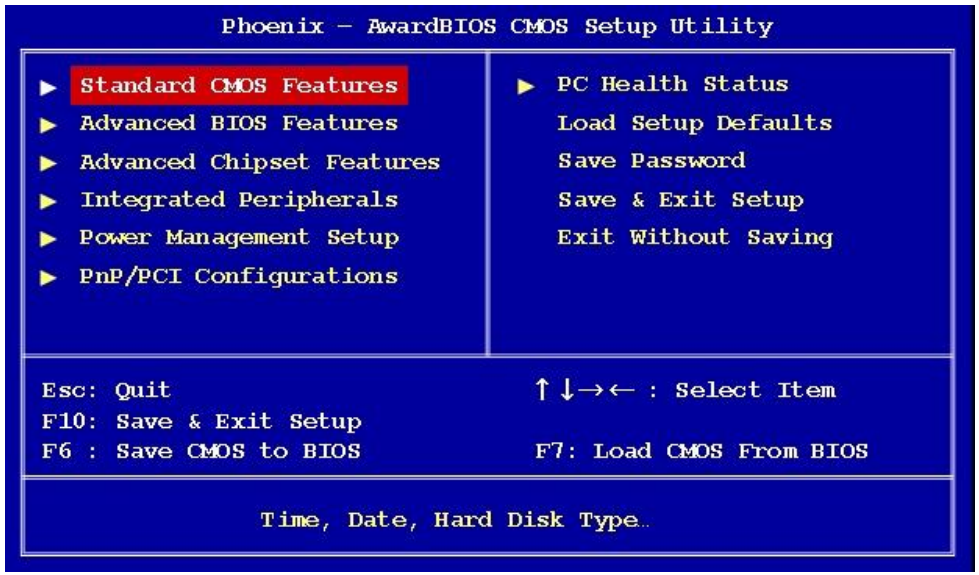
Set-up (DEL)

After pressing [power] button, when system starts, click [DEL] key or shown screen message Press [Del] to enter SETUP after pressing [Del] key then system set up screen changed.

Key(s)	Function Description
F1	General help, only for Status Page Setup Menu and Option Page Setup Menu
Esc	Return to the main menu from a submenu or prompts you to quit the setup program.
←, →	Move to the item in the left or right hand
↑, ↓	Move to previous or next item
Enter	Brings up a selection menu for the highlighted field.
+ or PgUp	Moves the cursor to the first field
- or PgDn	Moves the cursor to the last field
(Shift) F2 key	Change color from total 16 colors. F2 to select color forward, (Shift) F2 to select color backward
F5	Loads the previous values
F6, F7	Loads the fail-safe / optimized defaults
F10	Saves changes and exits Setup

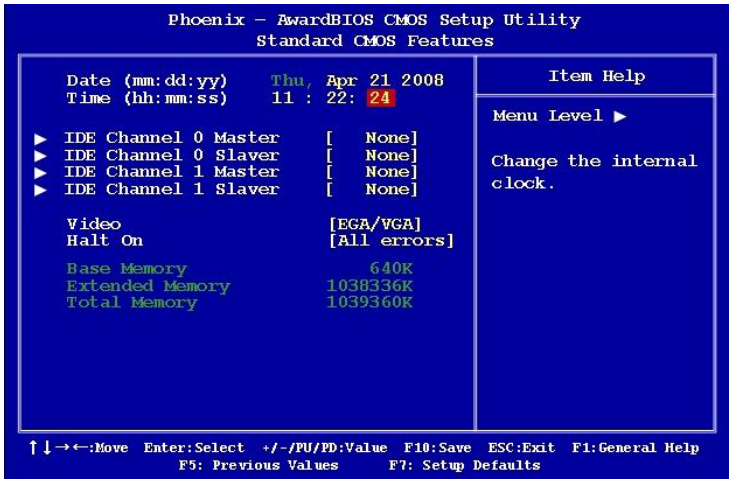
BIOS Menu Screen

When you enter the BIOS, the following screen appears.
The BIOS menu screen displays the items that allow you to make changes to the system configuration.
To access the menu items, press the up/down/right/left arrow key on the keyboard until the desired item is highlighted, then press [Enter] to open the specific menu.



Standard BIOS Features.

The Standard CMOS Features screen gives you an overview of the basic system


Phoenix – AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Thu, Apr 21 2008
Time (hh:mm:ss) 11 : 22: 24
IDE Channel 0 Master [None]
IDE Channel 0 Slaver [None]
IDE Channel 1 Master [None]
IDE Channel 1 Slaver [None]
Video [EGA/VGA]
Halt On [All errors]
Base Memory 640K
Extended Memory 1038336K
Total Memory 1039360K
Item Help
Menu Level ▶
Change the internal clock.
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Date [Day, xx/xx/xxxx]
The date format is 〈week〉, 〈month〉, 〈day〉, 〈year〉.

Time [xx:xx:xx]
The time format is 〈hour〉〈minute〉〈second〉, based on the 24–hour clock.

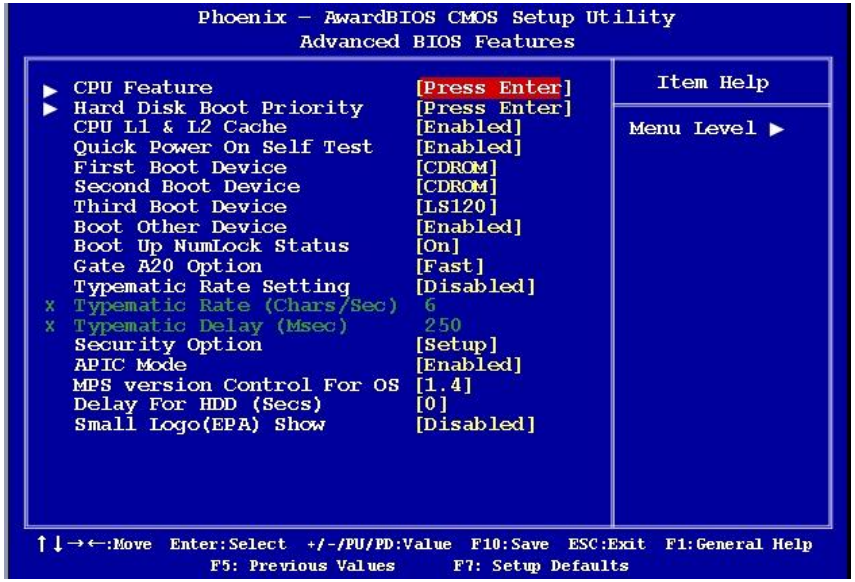
IDE Channel 0/1 Master / Slave
- IDE HDD Auto–Detection : [Press Enter] to select this option for automatic device detection.
- IDE Primary Master :
  [Auto]: Automatically detects IDE devices during POST
  [None]: Select this when no IDE device is used.
  The system will skip the auto–detection setup to make system start up faster.
  [Manual]: User can manually input the correct settings.
  - Access Mode: The options are CHS/LBA/Large/Auto
  - Capacity: Capacity of currently installed hard disk
  - Cylinder: Number of cylinders
  - Head: Number of heads
  - Precomp: Write precomp
  - Landing Zone: Landing zone
  - Sector: Number of sectors

Halt On
Set the system to halt on errors according to the system functions specified in each option.
Configuration options: [All Errors] [No Errors] [All, But Keyboard]

Video
This category detects the type of adapter used for the primary monitor that must match your video display card and monitor.
- EGA / VGA: Enhanced Graphics Adapter/Video Graphics Array.
  For EGA, VGA, SVGA, or PGA monitor adapters.
- CGA 40: Color Graphics Adapter, power up in 40 column mode.
- CGA 80: Color Graphics Adapter, power up in 80 column mode.
- MONO: Monochrome adapter includes high resolution monochrome adapters.

Advanced BIOS Features.

The "Advanced BIOS Features" screen appears when choosing the "Advanced BIOS Features" item from the "Initial Setup Screen" menu. It allows the user to configure the motherboard according to his particular requirements.
Below are some major items that are provided in the Advanced BIOS Features screen.
A quick booting function is provided for your convenience.
Simply enable the Quick Booting item to save yourself valuable time.


Phoenix – AwardBIOS CMOS Setup Utility
Advanced BIOS Features
▶ CPU Feature [Press Enter]
▶ Hard Disk Boot Priority [Press Enter]
CPU L1 & L2 Cache [Enabled]
Quick Power On Self Test [Enabled]
First Boot Device [CDROM]
Second Boot Device [CDROM]
Third Boot Device [LS120]
Boot Other Device [Enabled]
Boot Up NumLock Status [On]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
APIC Mode [Enabled]
MPS version Control For OS [1.4]
Delay For HDD (Secs) [0]
Small Logo(EPA) Show [Disabled]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

CPU Features
This item allows you to setup the CPU thermal management function.

Delay Prior to Thermal
With the default value of 16 Minutes, the BIOS activates the Thermal Monitor in automatic mode 16 minutes after the system starts booting up. The options: [4 Min], [8 Min], [16 Min], [32 Min].

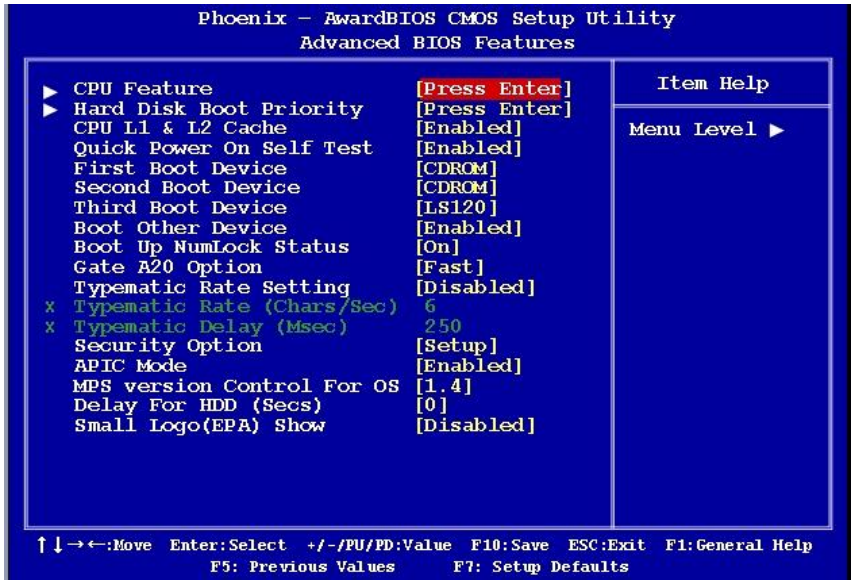
Hard Disk Boot Priority
Set hard disk boot device priority.

CPU L 1 & L2 Cache
Enabling this feature speeds up memory access.

Quick Power On Self Test
This allows the system to skip certain tests to speed up the boot–up procedure.

First / Second / Third Boot Device
The BIOS tries to load the OS from the devices in the sequence set here.

Advanced BIOS Features.


Phoenix – AwardBIOS CMOS Setup Utility
Advanced BIOS Features
▶ CPU Feature [Press Enter]
▶ Hard Disk Boot Priority [Press Enter]
CPU L1 & L2 Cache [Enabled]
Quick Power On Self Test [Enabled]
First Boot Device [CDROM]
Second Boot Device [CDROM]
Third Boot Device [LS120]
Boot Other Device [Enabled]
Boot Up NumLock Status [On]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
APIC Mode [Enabled]
MPS version Control For OS [1.4]
Delay For HDD (Secs) [0]
Small Logo(EPA) Show [Disabled]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Boot Other Device
Use this to boot another device. The options are "Enabled" and "Disabled"

Boot Up NumLock Status
Set the boot up Num Lock status. The options are "On" and "Off".

Gate A20 Option
Normal : A pin in the keyboard controller controls GateA20
Fast : Lets chipset control GateA20 (Default)

Typematic Rate Setting
The typematic rate is the rate key strokes repeat as determined by the keyboard controller.
The commands are "Enabled" or "Disabled".
Enabling allows the typematic rate and delay to be selected.

Security Option
This category determines whether the password is required when the system boots up or only when entering setup. The options are:
- System : The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.
- Setup : The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

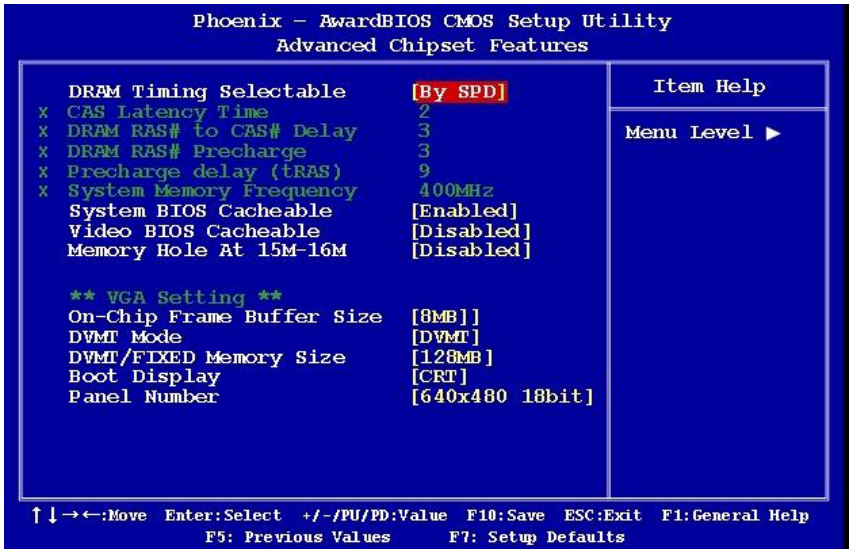
APIC Mode
This setting allows you to enable the APIC mode.
The choices are "Disabled" or "Enabled"

MPS Version Control for OS
This option is only valid for multiprocessor motherboards as it specifies the version of the Multiprocessor Specification (MPS) that the motherboard will use.
The MPS is a specification by which PC manufacturers design and build Intel architecture systems with two or more processors. MPS 1.1 was the original specification.
MPS version 1.4 adds extended configuration tables for improved support of multiple PCI bus configurations and greater expandability in the future.
In addition, MPS 1.4 introduces support for a secondary PCI bus without requiring a PCI bridge.

Delay for HDD (Secs)
The default is [0].

Small Logo (EPA) Show
This item allows you enabled/disabled the small EPA logo show on screen at the POST step.

Advanced Chipset Features.


Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features
DRAM Timing Selectable [By SPD]
x CAS Latency Time 2
x DRAM RAS# to CAS# Delay 3
x DRAM RAS# Precharge 3
x Precharge delay (tRAS) 9
x System Memory Frequency 400MHz
System BIOS Cacheable [Enabled]
Video BIOS Cacheable [Disabled]
Memory Hole At 15M-16M [Disabled]
** VGA Setting **
On-Chip Frame Buffer Size [8MB]]
DVMT Mode [DVMT]
DVMT/FIXED Memory Size [128MB]
Boot Display [CRT]
Panel Number [640x480 18bit]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

DRAM Timing Selectable
This item allows you to select the DRAM timing value by SPD data or Manual by yourself. The choices: Manual, By SPD.

System BIOS Cacheable
Selecting "Enabled" allows caching of the system BIOS ROM at F0000h– FFFFFh, resulting in better system performance.
However, if any program writes data to this memory area, a system error may occur.
The Choices are "Enabled" and "Disabled"

Video BIOS Cacheable
This feature is only valid when the video BIOS is shadowed.
It enables or disables the Caching of the video BIOS ROM at C0000h–C7FFFh via the L2 cache.
This greatly speeds up accesses to the video BIOS.
However, this does not translate into better system Performance because the OS bypasses the BIOS using the graphics driver to access the video card's hardware directly. The Choice: Enabled, Disabled.

Memory Hole at 15M–16M
Enabling this feature reserves 15 MB to 16 MB memory address space for ISA expa–nsion cards that specifically require this setting. This makes memory from 15 MB and up unavailable to the system. Expansion cards can only access memory up to 16 MB.
The default setting is "Disabled"

On–Chip Frame Buffer Size
The On–Chip Frame Buffer Size can be set to 1 MB or 8 MB. This memory is shared with the system memory.

DVMT Mode
Use this field to select the memory to allocate for video memory. The choices are "Fixed", "DVMT" and "BOTH".

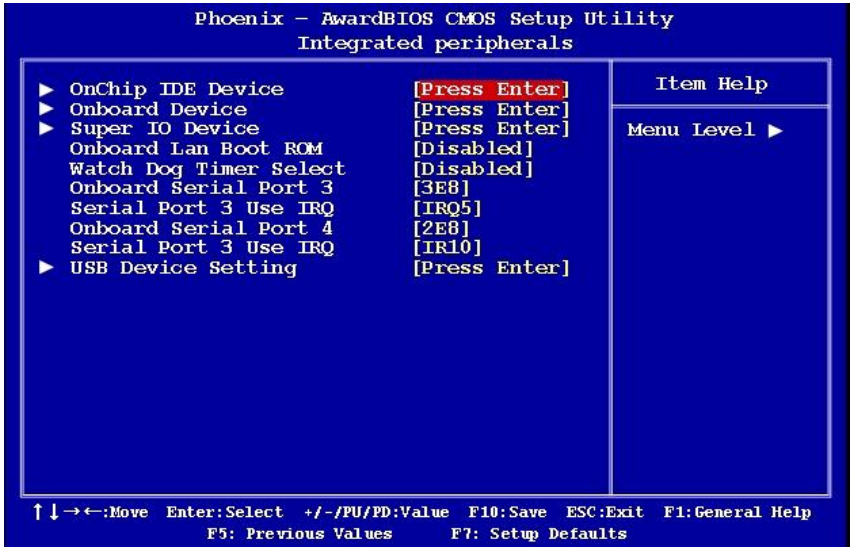
DVMT/FIXED Memory Size
Specify the size of DVMT/system memory to allocate for video memory. The options: [64MB], [128MB]

Boot Display
The options: [Auto], [CRT], [LFP], [CRT+LFP], [DVI]

Panel Number The options:
[640x480 18bit] [800x600 18bit] [1024x768 18bit] [1280x1024 18bit/2] [1400x1050 18bit/2] [1400x1050 18bit/2] [1600x1200 18bit/2] [1280x768 18bit] [1680x1050 18bit/2] [1920x1200 18bit/2] [1024x768 18bit/2] [1024x768 24bit] [1024x768 18bit] [1280x800 24bit] [1280x600 18bit] [2048x1536 18bit/2]

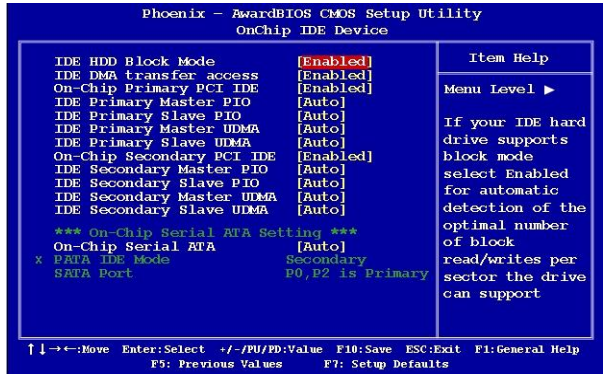
Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.


Phoenix - AwardBIOS CMOS Setup Utility
Integrated peripherals
▶ OnChip IDE Device [Press Enter]
▶ Onboard Device [Press Enter]
▶ Super IO Device [Press Enter]
Onboard Lan Boot ROM [Disabled]
Watch Dog Timer Select [Disabled]
Onboard Serial Port 3 [3E8]
Serial Port 3 Use IRQ [IRQ5]
Onboard Serial Port 4 [2E8]
Serial Port 3 Use IRQ [IR10]
▶ USB Device Setting [Press Enter]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Integrated Peripherals

[On Chip IDE Device]


Phoenix – AwardBIOS CMOS Setup Utility
OnChip IDE Device
IDE HDD Block Mode [Enabled]
IDE DMA transfer access [Enabled]
On-Chip Primary PCI IDE [Enabled]
IDE Primary Master PIO [Auto]
IDE Primary Slave PIO [Auto]
IDE Primary Master UDMA [Auto]
IDE Primary Slave UDMA [Auto]
On-Chip Secondary PCI IDE [Enabled]
IDE Secondary Master PIO [Auto]
IDE Secondary Slave PIO [Auto]
IDE Secondary Master UDMA [Auto]
IDE Secondary Slave UDMA [Auto]
*** On-Chip Serial ATA Setting ***
On-Chip Serial ATA [Auto]
x PATA IDE Mode Secondary
SATA Port P0,P2 is Primary
Item Help
Menu Level ▶
If your IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

IDE HDD Block Model
If the IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.

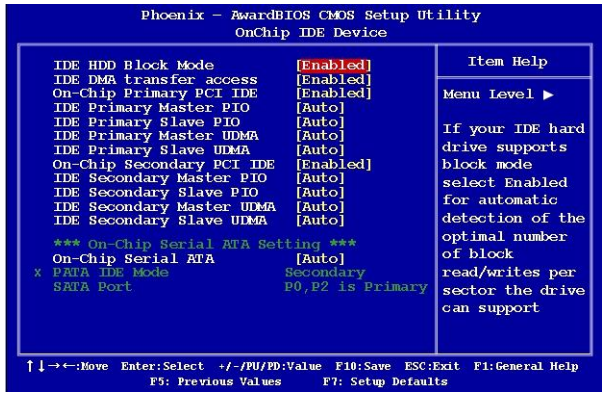
IDE DMA Transfer Access
Use this field to enable or disable IDE DMA transfer access.

On-Chip Primary / Secondary PCI IDE
The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to active the primary / secondary IDE interface. Select Disabled to deactivate this interface.
The options: [Enabled], [Disabled]

IDE Primary/Secondary Master/Slave PIO/UDMA
The channel has both a master and a slave, making four IDE devices possible. Because two IDE devices may have a different Mode timing (0, 1, 2, 3, 4), it is necessary for these to be independent.
The default setting "Auto" will allow auto detection to ensure optimal performance.

On-Chip Serial ATA
The chipset contains a SATA IDE interface with support for two IDE channels. Select Enabled to activate the primary IDE interface (Channel0).
Select Disabled to deactivate this interface. The options: Disabled, Auto, Combined Mode, SATA Only.

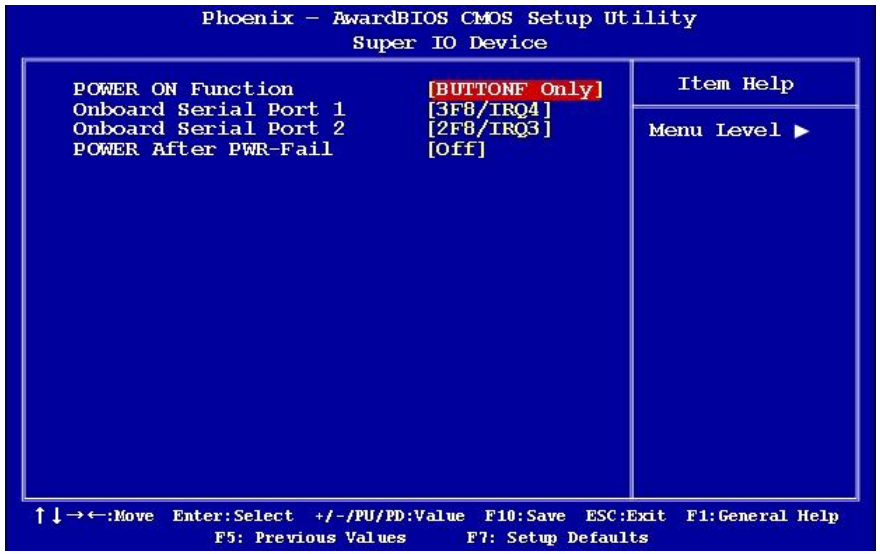
[Onboard Device]


Phoenix – AwardBIOS CMOS Setup Utility
OnChip IDE Device
IDE HDD Block Mode [Enabled]
IDE DMA transfer access [Enabled]
On-Chip Primary PCI IDE [Enabled]
IDE Primary Master PIO [Auto]
IDE Primary Slave PIO [Auto]
IDE Primary Master UDMA [Auto]
IDE Primary Slave UDMA [Auto]
On-Chip Secondary PCI IDE [Enabled]
IDE Secondary Master PIO [Auto]
IDE Secondary Slave PIO [Auto]
IDE Secondary Master UDMA [Auto]
IDE Secondary Slave UDMA [Auto]
*** On-Chip Serial ATA Setting ***
On-Chip Serial ATA [Auto]
x PATA IDE Mode Secondary
SATA Port P0,P2 is Primary
Item Help
Menu Level ▶
If your IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Azalia/AC97 Audio Select
This item allows you to Enabled/Disabled Azalia/AC97 chipset.
The options: Auto, AC97 Audio only, Disabled.

Integrated Peripherals

[Super I/O Device]

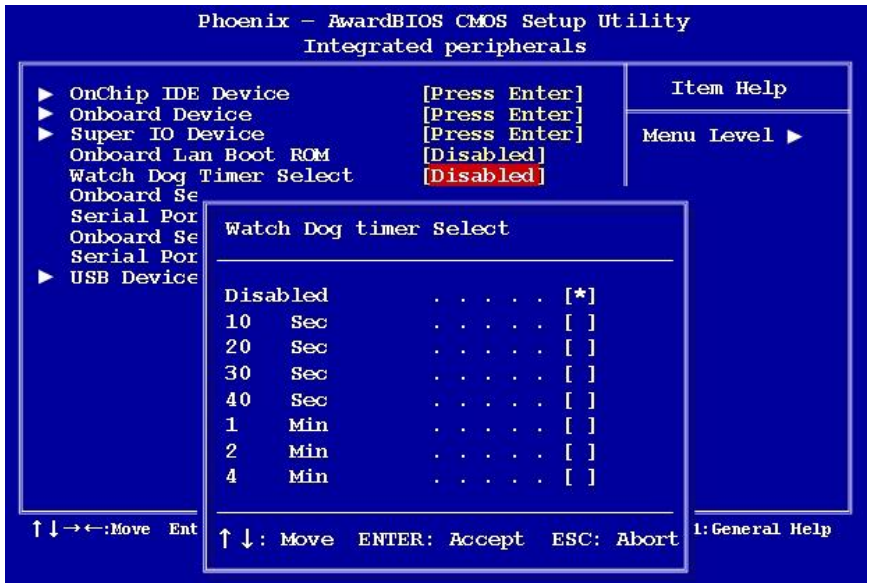

Phoenix - AwardBIOS CMOS Setup Utility
Super IO Device
POWER ON Function [BUTTONF Only]
Onboard Serial Port 1 [3F8/IRQ4]
Onboard Serial Port 2 [2F8/IRQ3]
POWER After PWR-Fail [Off]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Power ON Function
This feature allows you to wake up the system using any of the listed options.
The options: [Mouse Left], [Mouse Right], [Any KEY], [Button Only].

Onboard Serial Port
Select an address and corresponding interrupt for the first and second serial ports.
The choice: [Disabled], [3F8/IRQ4], [2F8/IRQ3], [3E8/IRQ4], [2E8/IRQ3]

POWER After PWR-fail
The options are [off], [on].

Integrated Peripherals


Phoenix – AwardBIOS CMOS Setup Utility
Integrated peripherals
▶ OnChip IDE Device [Press Enter]
▶ Onboard Device [Press Enter]
▶ Super IO Device [Press Enter]
Onboard Lan Boot ROM [Disabled]
Watch Dog Timer Select [Disabled]
Onboard Se
Serial Por
Onboard Se
Serial Por
▶ USB Device
Item Help
Menu Level ▶
Watch Dog timer Select
Disabled . . . . . [*]
10 Sec . . . . . [ ]
20 Sec . . . . . [ ]
30 Sec . . . . . [ ]
40 Sec . . . . . [ ]
1 Min . . . . . [ ]
2 Min . . . . . [ ]
4 Min . . . . . [ ]
↑↓→←:Move Ent
↑↓: Move ENTER: Accept ESC: Abort
1:General Help

Onboard LAN Boot ROM
The options are [disabled], [enable].

Watch Dog Timer Select
This option will determine watchdog timer.
The choices: Disabled, 10, 20, 30, 40 Sec. 1, 2, 4 Min.

Onboard Serial Port 3
Select an address and corresponding interrupt for the serial ports.
The choice: [Disabled], [3F8], [2F8], [3E8], [2E8].

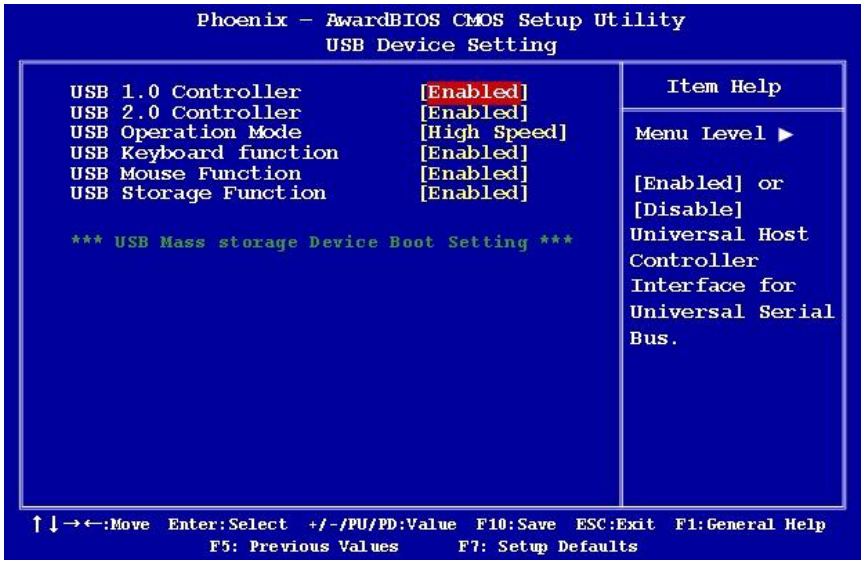
Serial Port 3 Use IRQ
Select an IRQ for the serial ports.
The options: IRQ3, IRQ4, IRQ5, IRQ7, IRQ10, IRQ11

Onboard Serial Port 4
Select an address and corresponding interrupt for the serial ports.
The choice: [Disabled], [3F8], [2F8], [3E8], [2E8].

Serial Port 4 Use IRQ
Select an IRQ for the serial ports.
The options: IRQ3, IRQ4, IRQ5, IRQ7, IRQ10, IRQ11

Integrated Peripherals

[USB Device Setting]


Phoenix – AwardBIOS CMOS Setup Utility
USB Device Setting
USB 1.0 Controller [Enabled]
USB 2.0 Controller [Enabled]
USB Operation Mode [High Speed]
USB Keyboard function [Enabled]
USB Mouse Function [Enabled]
USB Storage Function [Enabled]
*** USB Mass storage Device Boot Setting ***
Item Help
Menu Level ▶
[Enabled] or [Disable] Universal Host Controller Interface for Universal Serial Bus.
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

USB 1.0 / 2.0 Controller
The choices: Disabled, Enabled.

USB Operation Mode
Allow you to configure the USB 2.0 controller in HiSpeed (480 Mbps) or Full Speed (12 Mbps).
Configuration options: [Full/Low Speed] [HiSpeed]

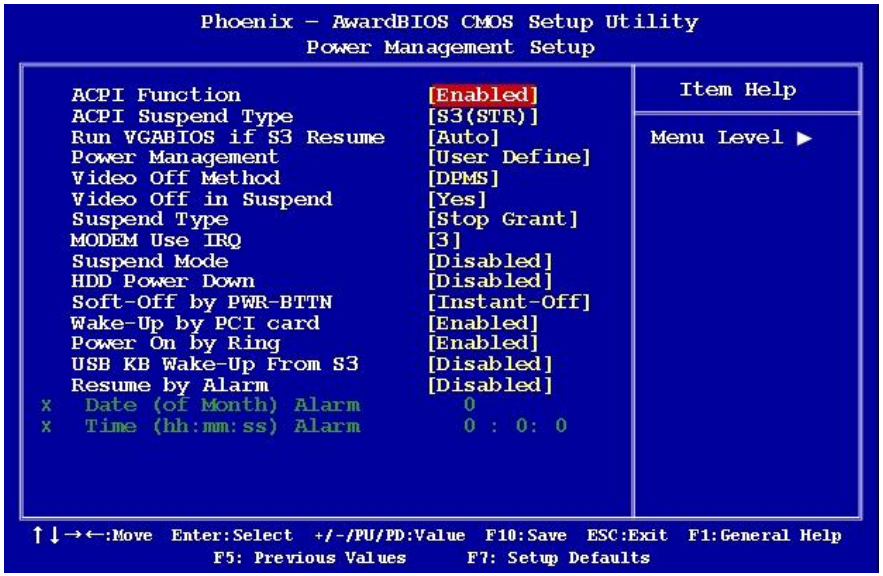
USB Keyboard Function
The choices: Disabled, Enabled.

USB Mouse Function
The choices: Disabled, Enabled.

USB Storage Function
The choices: Disabled, Enabled.

Power Management Setup.

The power management setup controls the single board computer's "green" features to save power.
The following screen shows the manufacturer's defaults.


Phoenix – AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI Function [Enabled]
ACPI Suspend Type [S3(STR)]
Run VGABIOS if S3 Resume [Auto]
Power Management [User Define]
Video Off Method [DPMS]
Video Off in Suspend [Yes]
Suspend Type [Stop Grant]
MODEM Use IRQ [3]
Suspend Mode [Disabled]
HDD Power Down [Disabled]
Soft-Off by PWR-BTTN [Instant-Off]
Wake-Up by PCI card [Enabled]
Power On by Ring [Enabled]
USB KB Wake-Up From S3 [Disabled]
Resume by Alarm [Disabled]
x Date (of Month) Alarm 0
x Time (hh:mm:ss) Alarm 0 : 0: 0
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

ACPI Function
The choices are "Enabled" and "Disabled".

ACPI Suspend Type
This item allows you to set ACPI suspend type to S1/POS(Power On Suspend) or S3/STR (Suspend To RAM).

Run VGABIOS if S3 Resume
Select "Auto" to run VGA BIOS if S3 resume automatically.
The "Yes" enables running VGA BIOS if S3 resume.
The "No" disables this function.

Power Management
There are three selections for Power Management, and each of them has fixed mode settings

Video OFF Method
Use this to select the method to turn off the video.

Video OFF In Suspend
When the system is in suspend mode, the video will turn off.

Suspend Type
Select the suspend type. The choice: Stop Grant, Pwron suspend.

MODEM Use IRQ
This determines the IRQ in which the MODEM can use. The choices: NA, 3, 4, 5, 7, 9, 10, 11.

Suspend Mode
The item allows to set the number of minutes before the system enters suspend mode.

HDD Power Down
Select "1–15 mins." to enable HDD Power Down mode between 1 to 15 mins. Select "Disabled" to disable HDD Power Down function.

Soft–off by PWR–BTTN
If you choose "Instant–Off", then pushing the ATX soft power switch but– ton once will switch the system to "system off" power mode.
You can choose "Delay 4 sec". If you do, then pushing the button for more than 4 seconds will turn off the system, whereas pushing the button momentarily (for less than 4 seconds) will switch the system to "suspend" mode.

Power Management Setup.

Phoenix – AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI Function [Enabled]
ACPI Suspend Type [S3(STR)]
Run VGABIOS if S3 Resume [Auto]
Power Management [User Define]
Video Off Method [DPMS]
Video Off in Suspend [Yes]
Suspend Type [Stop Grant]
MODEM Use IRQ [3]
Suspend Mode [Disabled]
HDD Power Down [Disabled]
Soft-Off by PWR-BTTN [Instant-Off]
Wake-Up by PCI card [Enabled]
Power On by Ring [Enabled]
USB KB Wake-Up From S3 [Disabled]
Resume by Alarm [Disabled]
x Date (of Month) Alarm 0
x Time (hh:mm:ss) Alarm 0 : 0: 0
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

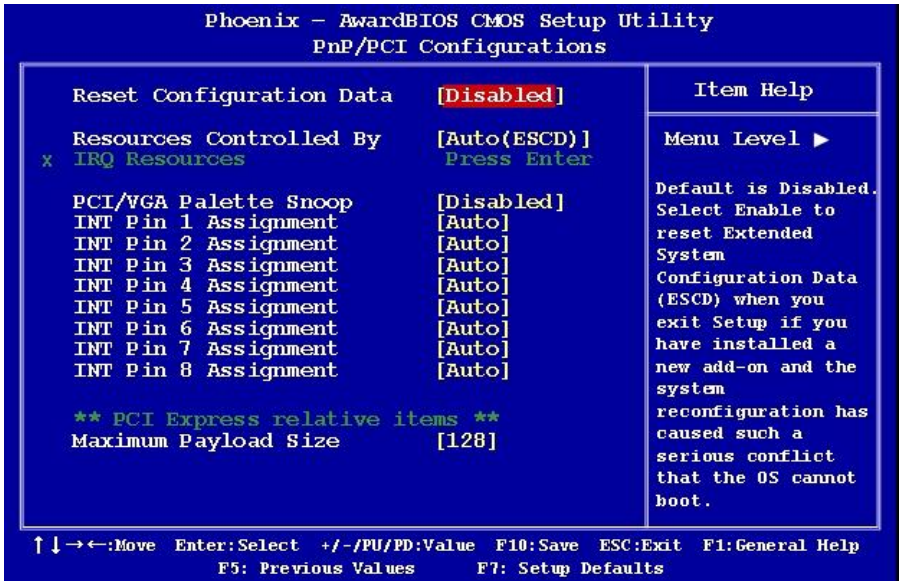
Wake–Up by PCI Card
This will enable the system to wake up through PCI/LAN peripheral.
The choices: Enable, Disabled.

Power On by Ring
Select "Enabled" to power on the system from a soft off state by an input signal on the serial Ring Indicator (RI) line.
The choices are "Enabled" and "Disabled".

USB KB Wake–Up from S3
When "Enabled", enter any key to wake up the system from S3 state.
The choices are "Enabled" and "Disabled".

Resume by Alarm
When "Enabled", set the date and time at which the RTC (real–time clock) alarm awakens the system from suspend mode.
The choices are "Enabled" and "Disabled"

PnP/PCI Configurations


Phoenix – AwardBIOS CMOS Setup Utility
PnP/PCI Configurations
Reset Configuration Data [Disabled]
Resources Controlled By [Auto(ESCD)]
x IRQ Resources Press Enter
PCI/VGA Palette Snoop [Disabled]
INT Pin 1 Assignment [Auto]
INT Pin 2 Assignment [Auto]
INT Pin 3 Assignment [Auto]
INT Pin 4 Assignment [Auto]
INT Pin 5 Assignment [Auto]
INT Pin 6 Assignment [Auto]
INT Pin 7 Assignment [Auto]
INT Pin 8 Assignment [Auto]
** PCI Express relative items **
Maximum Payload Size [128]
Item Help
Menu Level ▶
Default is Disabled. Select Enable to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot.
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7: Setup Defaults

Rest Configuration Data
The default is "Disabled". Select Enabled to reset Extended System Configuration Data (ESCD) if you have installed a new add-on card, and system configuration is in such a state that the OS cannot boot.

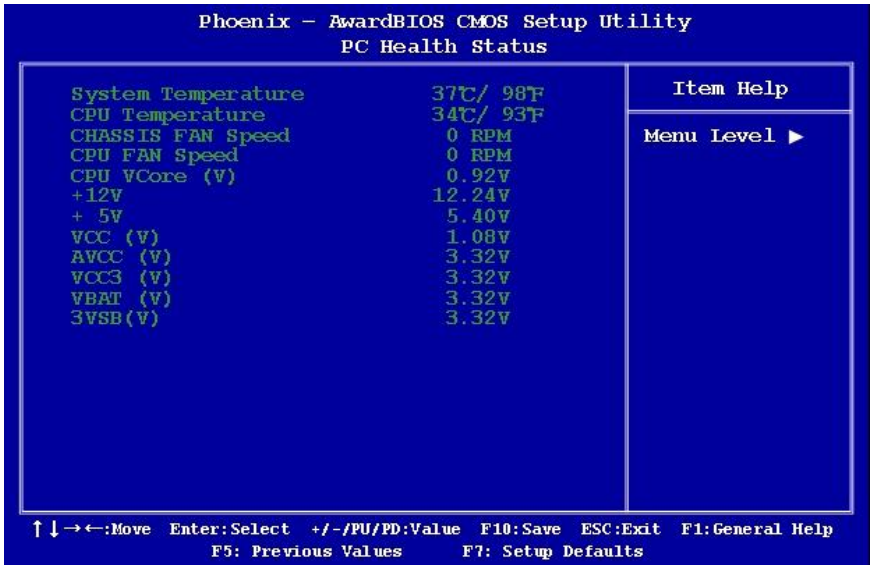
Resource Controlled By
The commands here are "Auto(ESCD)" or "Manual".
Choosing "Manual" requires you to choose resources from the following sub-menu. "Auto(ESCD)" automatically configures all of the boot and Plug and Play devices, but you must be using Windows 95 or above.

PCI/VGA Palette Snoop
This is set to "Disabled" by default.

INT Pin 1/2/3/4/5/6/7/8 Assignment
The choices: Auto, 3, 4, 5, 7, 9, 10, 11

Maximum Payload Size
This allows you to set the maximum TLP payload size for PCI Express devices.
The options: [128 bytes], [256 bytes], [512 bytes], [1024 bytes], [2048 bytes], [4096 bytes].

PC Health Status



System Temperature
This shows you the current temperature of system.

CPU Temperature
This shows the current CPU temperature.

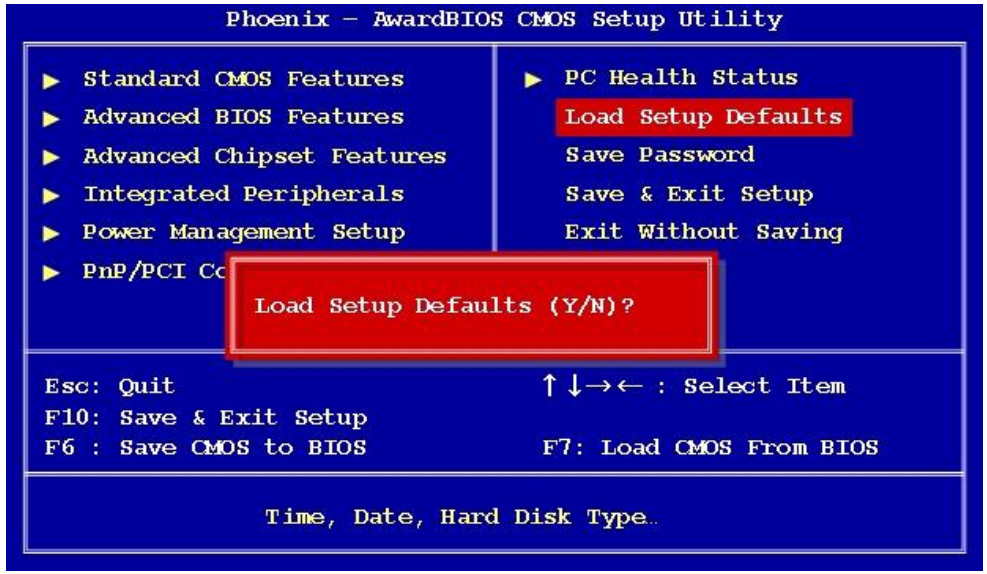
Chassis FAN Speed
This shows the Chassis FAN Speed (RPM).

CPU FAN Speed
This shows the CPU FAN Speed.(RPM)

VCore and Others Voltage
This shows the voltage of VCORE, +5V, +12V, VCC(V), AVCC(V), VCC3(V), VBAT(V), and 3VSB(V).

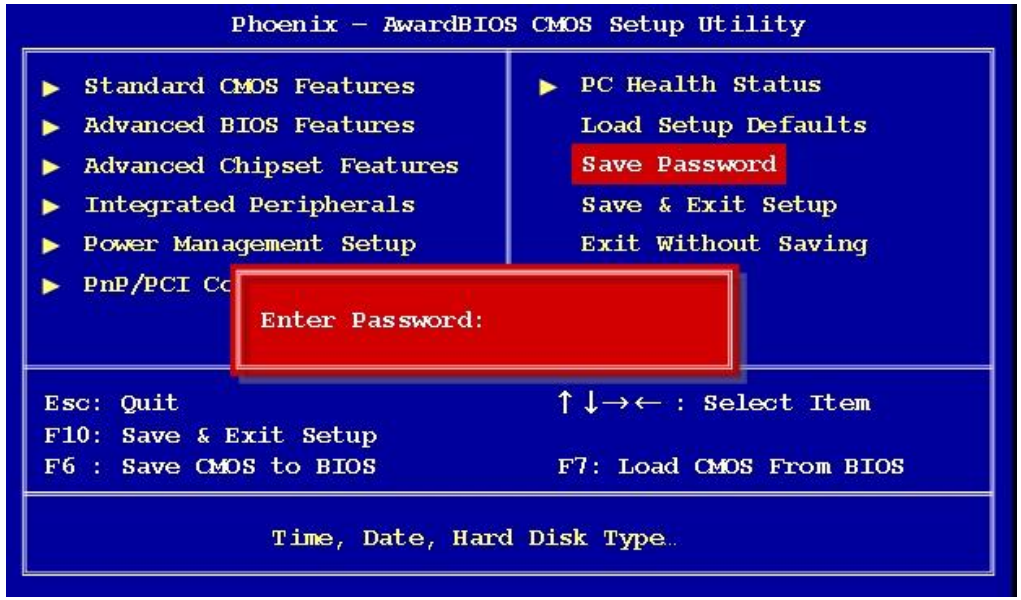
Load Setup Defaults

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations.
While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.
Press 〈Y〉 to load the default values setting for optimal performance system operations.



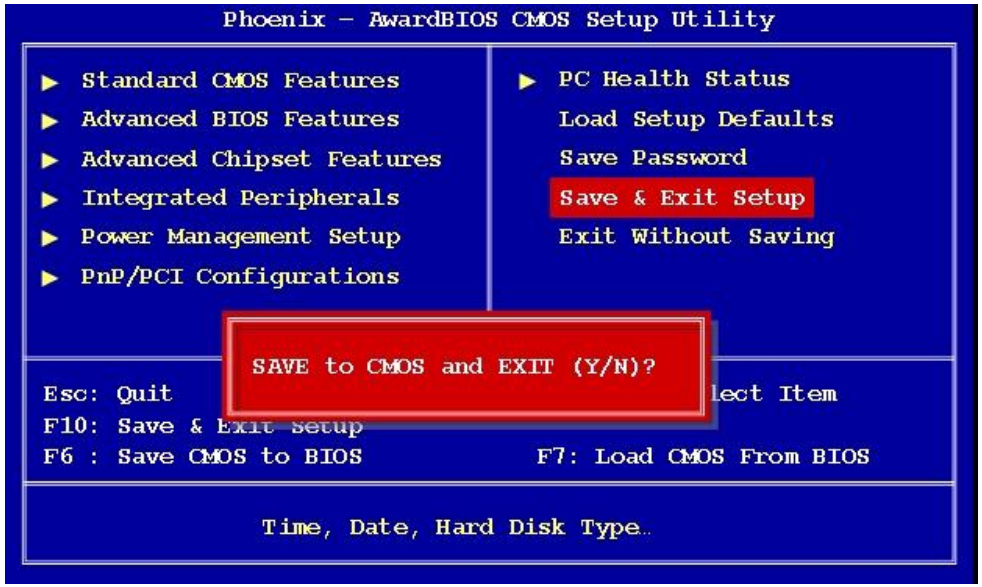
Set Password.

You can set password. It is able to entel / change the options of setup menus.



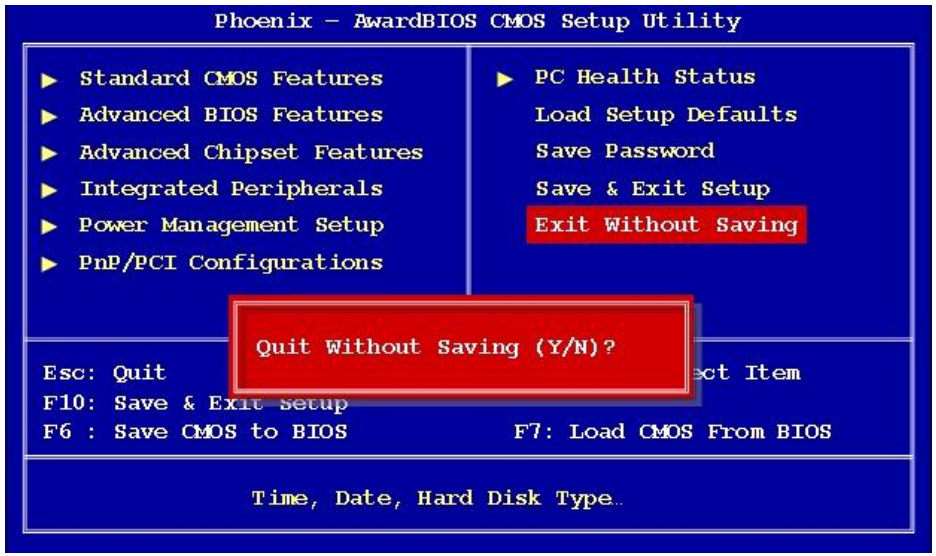
Save and Exit Setup.

If you select this and press 〈Enter〉, the values entered in the setup utilities will be recorded in the CMOS memory of the chipset.
The processor will check this every time you turn your system on and compare this to what it finds as it checks the system. This record is required for the sys– tem to operate.



Exit without saving

Selecting this option and pressing 〈Enter〉 lets you exit the setup program without recording any new values or changing old ones.



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Chapter 4.

Trouble Shooting

General checkout guidelines

Use the following procedure to troubleshoot problems:

- Identify as many symptoms as possible in detail.
- Verify symptoms by recreating them.
- Follow the corrective procedures in order.
- If you replace an FRU and the symptom remains, reinstall the original FRU before going to the next step.
  Do not replace non-defective FRUs.

Power system checkout

Power system problems can result from a faulty ac adapter, or undetermined problems (such as loose connections).
Refer to the following to check the ac adapter..

Trouble shooting

Network Symptom

Cannot access LAN

- Check hub / switch is working correctly
- Check the RJ45 cable
- Check the RJ-45 LEDs are on
- Reinstalled LAN card
- Replace main board

MSR Symptom

MSR does not response

- Check the MSR reader cable
- Check the main board to LCD cable
- Check the MSR board cable

USB Symptom

USB port does not function

- Check the ports are detected in windows device Manager
- Check the USB device
- Reinstalled USB driver
- Replace the USB device

Trouble shooting

Cash drawer Symptom

Cash drawer does not function	– Check the cash drawer cable – Replace the cash drawer cable

LCD Symptom

LCd backlight is not working but text is still visible on screen	– Check the LCD cable – Check the inverter cable – Replace the inverter cable – Replace the LCD panel

Touch screen Symptom

Touch screen does not function	– Check the touch screen cable – Check the main board to LCD cable – Check the BIOS settings

Trouble shooting

Power Symptom

Power shut down unexpectedly can not turn the system

- Check the A/C cable
- Check the main board power connector
- Check the CPU setting
- Check the DRAM setting
- Check the power button cable
- Replace the power supply unit

PS/2 Keyboard Symptom

PS/2 Keyboard does not function

- Check the card reader cable
- Check jumper CN6 if there is not installed card reader

Boot Symptom

system continually reboots on power up

- Check the IDE cable
- Check the memory

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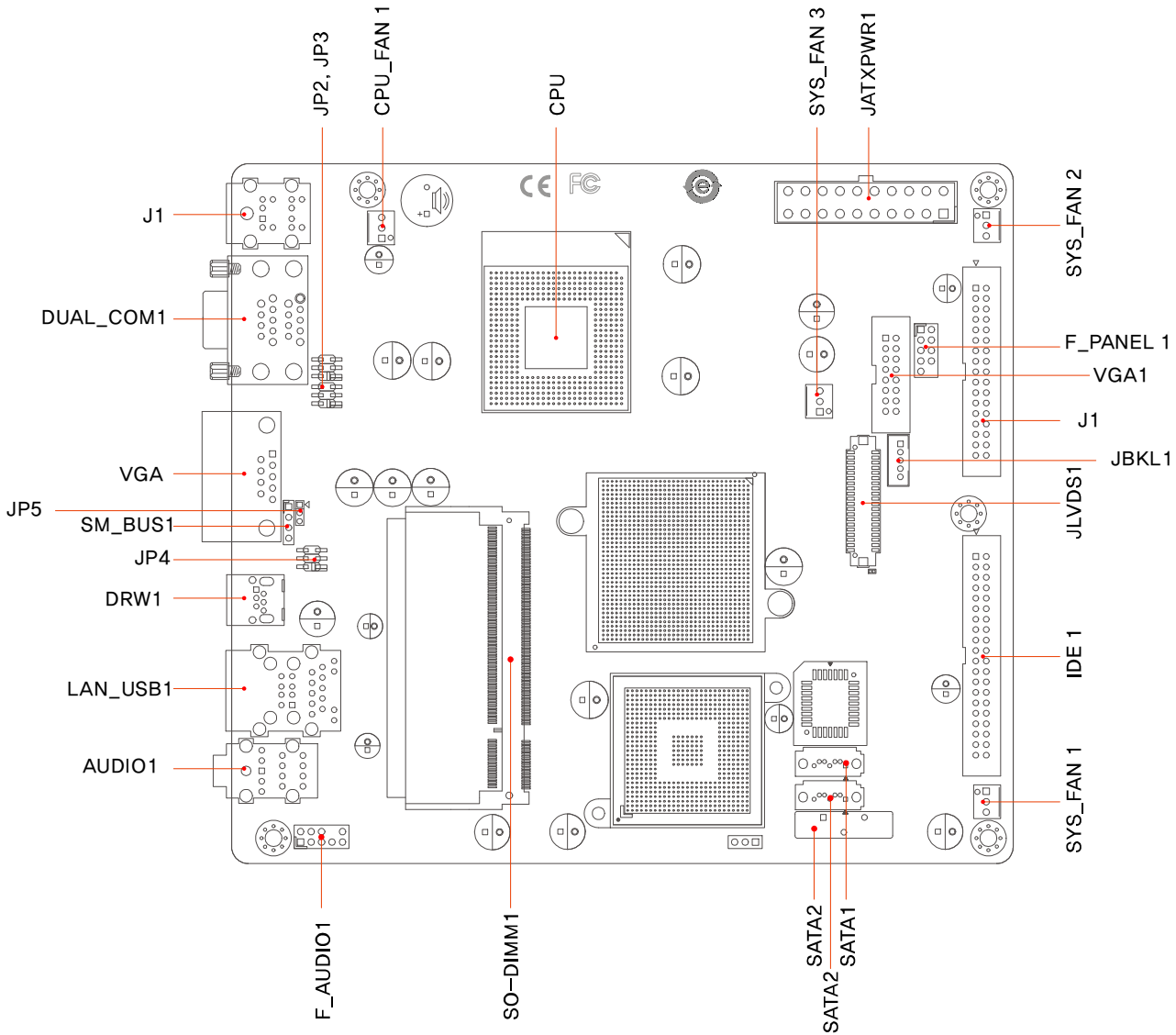
Chapter 5.

Mainboard Jumper Setting

Mainboard and PCB jumper setting



Mainboard and PCB jumper setting method

Mainboard and dip switch location description

Slots			
Label	Function	Note	
CF1	CompactFlash socket		
DIMMA1	DDR2 SO-DIMM slot		
	Jumpers		
Label	Function	Note	
CLRRTC1	Clear CMOS	3 x 1 header, pitch 2.54mm	
JCOMPWR1	COM port 1,2 RI/+5V/+12V selection	5 x 2 header, pitch 2.00mm	
JCOMPWR2	COM port 3,4 RI/+5V/+12V selection	5 x 2 header, pitch 2.00mm	
VCC_SEL1	CPU VCC Voltage Select	3 x 1 header, pitch 2.54mm	
PCI1	PCI slot		

Rear Panel Connector			
Label	Function	Note	
J1	PS/2 keyboard and mouse	6-pin Mini -Din	
DUAL COM1	Serial port connector x 2	D-sub 9-pin, male	
VGA-D1	VGA port	D-sub 15-pin, female	
LAN_USB1	RJ-45 Ethernet connector x 1 USB connector x 2		
USB2	USB connector x 2		
AUDIO	Line -in port, Line -out port, Microphone port,	6-Channel Audio I/O (3 jacks)	

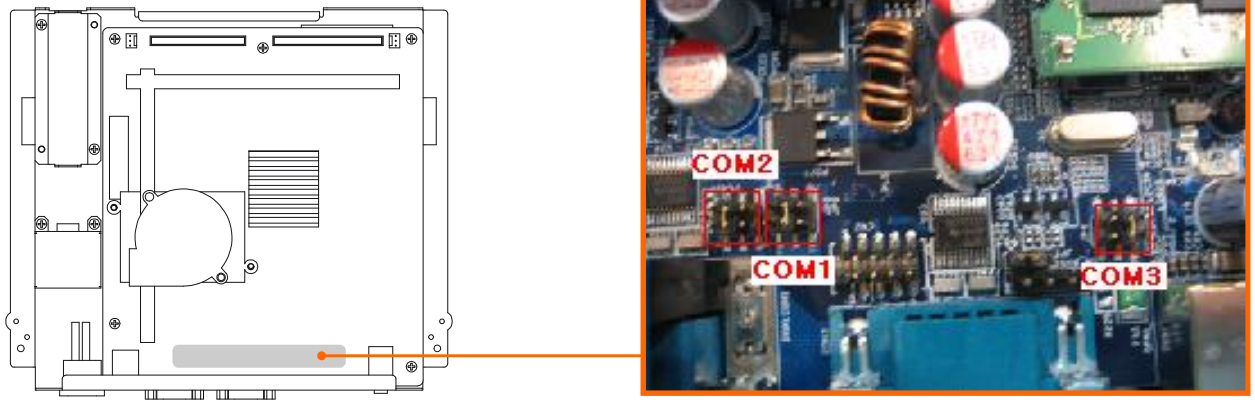
Mainboard and PCB jumper setting method

Mainboard and dips location description

Internal Connector			
Label	Function	Note	
AMPJ1	Amplifier connector	4 x 1 header, pitch 2.54mm	
CPU_FAN1	CPU fan connector	3 x 1 wafer, pitch 2.54mm	
SYS_FAN1	System fan connector	3 x 1 wafer, pitch 2.54mm	
COM3	Serial port connector 3	5 x 2 header, pitch 2.54mm	
COM4	Serial port connector 4	5 x 2 header, pitch 2.54mm	
F_AUDIO1	Front headphone connector	5 x 2 header, pitch 2.54mm	
F_PANEL1	System panel connector	5 x 2 header, pitch 2.54mm	
FRONT_USB1	USB 2.0 connector	5 x 2 header, pitch 2.54mm	
FRONT_USB2	USB 2.0 connector	5 x 2 header, pitch 2.54mm	
IDE1	Primary IDE connector	20 x 2 header, pitch 2.54mm	
JATXPWR1	ATX power connector	10 x 2 header	
JBKLT1	LCD Inverter connector	5 x 1 header, pitch 2.00mm	
JLVDS1	LVDS connector	HIROSE DF13S -40DP-1.25V	
JDIO	Digital I/O connector	10 x 2 header, pitch 2.00mm	
SATA1	Serial ATA connectors [black]	7-pin header	
SATA2	Serial ATA connectors [black]	7-pin header	

Jumper setting

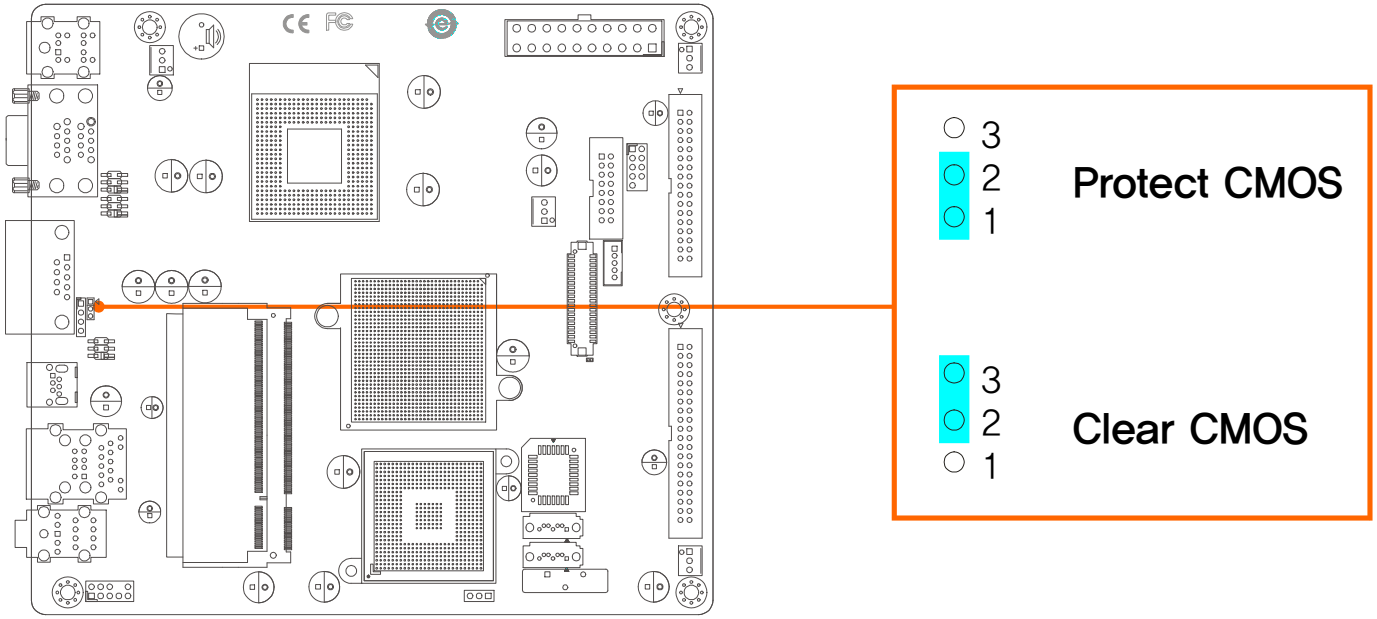
Serial port power setting



	Pin 9 12V output		Pin 5 5V output		Pin 9 RI (Ring Indicate)

CMOS Clear

CMOS Clear



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Chapter 6.

Replacing Parts

Replacing Field Replaceable Units (FRUS)

THIS CHAPTER PROVIDES INSTRUCTIONS FOR REPLACING FRUS.

THE FOLLOWING TOPICS ARE DESCRIBED.

- Safety and precautions
- Before you begin
- Replacing parts

Safety and precautions

Computer components and electronic circuit boards can be damaged by discharges of static electricity.
Working on computers that are still connected to a power supply can be extremely dangerous.
Follow these guidelines to avoid damage to the computer or injury to yourself.

- Always disconnect the unit from the power outlet.
- Leave all components inside the static-proof packaging that they ship with until they are ready for installation.
- After replacing optional devices, make sure all screws, springs, or other small parts are in place and are not left loose inside the case.
- Metallic parts or metal flakes can cause electrical shorts.

CAUTION	– Only qualified personnel should perform repairs on the IMPREX. Damage due to unauthorized servicing is not covered by the warranty. – If the LCD breaks and fluid gets onto your hands or into your eyes, immediately wash with water and seek medical attention. – Under no circumstances touch the inverter card while power is connected to the IMPREX. Unplug the power cord before attempting to replace any FRU. – To prevent static damage to components, wear a grounded wrist strap. Alternatively, discharge any static electricity by touching the bare metal chassis of the unit case, or the bare metal body of any other grounded appliance. – Hold electronic circuit boards by the edges only. Do not touch the components on the board unless it is necessary to do so. Do not flex or stress the circuitboard. Do not hold components such as a processor by its pins; hold it by the edges.

Replacing Field Replaceable Units

Before you begin

Make sure you have a stable, clean working environment. Dust and dirt can get into IMPREX components and cause a malfunction.
Adequate lighting and proper tools can prevent you from accidentally damaging the internal components.
Most of the electrical and mechanical connections can be disconnected by using your fingers. It is recommended that you do not use needle –nosed pliers to disconnect connectors as these can damage the soft metal or plastic parts of the connectors

CAUTION	To prevent scratching the case of the IMPREX, make sure the work top surface is clean and flat. If you need to put the display facing down, be sure to use a foam mat.

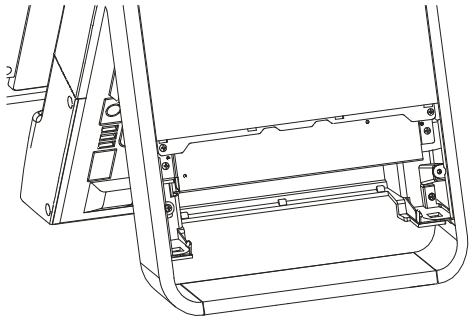
■ Replacing parts

Take note of the following when replacing parts:

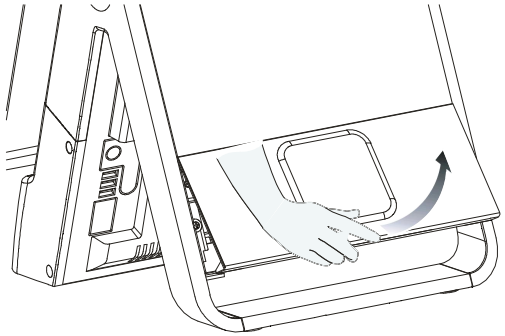
- If you replace an FRU and the symptom remains, reinstall the original FRU before going to the next step. Do not replace non–defective FRUs.
- When replacing a failing part, other parts that have to be removed before the failing part are listed at the top of the page.
- The arrows in the following procedures show the direction of movement to remove/replace a part, or to turn a screw or key to release a device.
- To replace a part, reverse the removal procedure.

Replacing Field Replaceable Units

Interface Cover



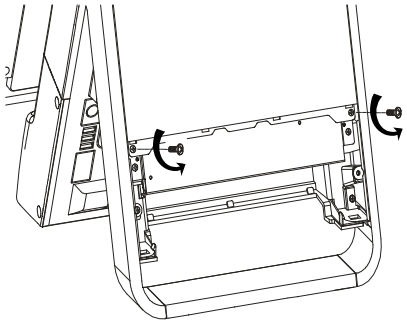
1. Holding down and lift up the interface cover.



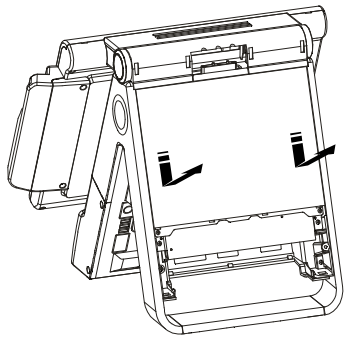
2. Remove the interface cover

Replacing Field Replaceable Units

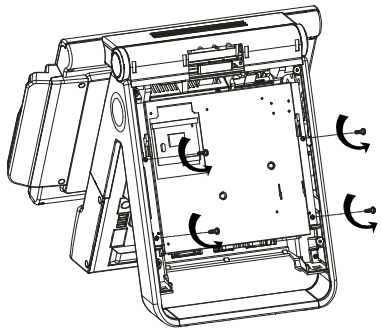
Motherboard



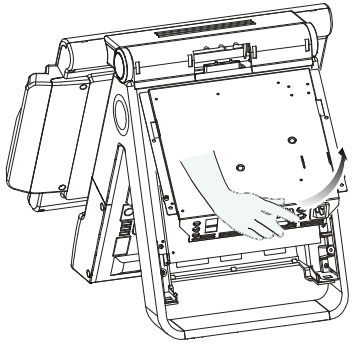
1. Loosen the 2 screws by screwdriver as described in holes



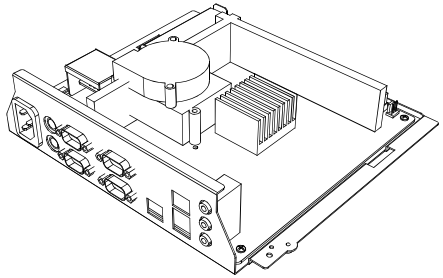
2. Slide down and remove the rear cover.



3. Loosen the 4 screws by screwdriver as described in holes



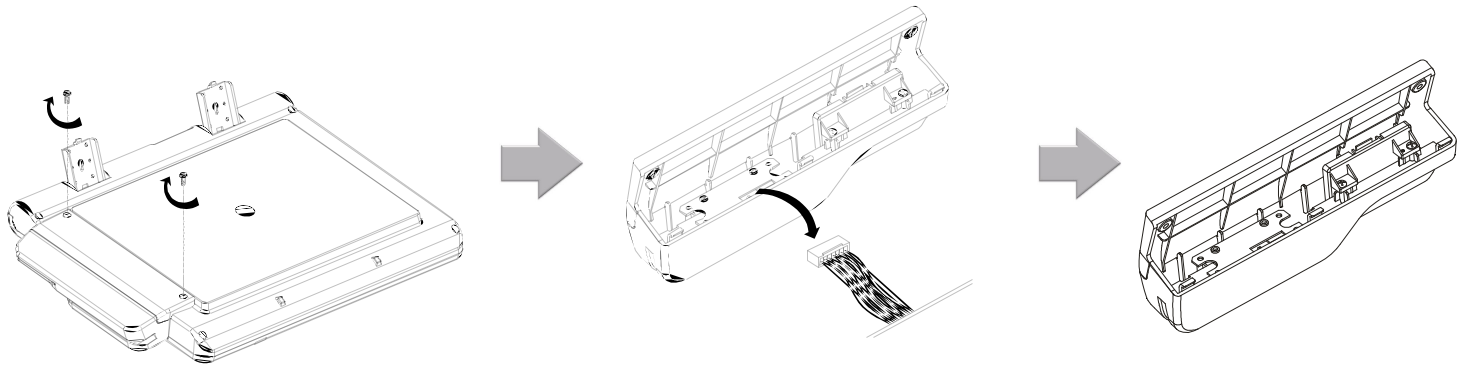
4. Slide up and remove the motherboard.



5. Remove the cable

Replacing Field Replaceable Units

MSR



1. Loosen the two screws.

2. Remove the cable

3. Remove the MSR

Replacing Field Replaceable Units

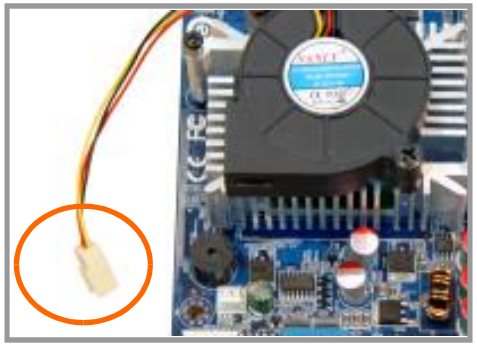
Memory

1. Open the release latches.

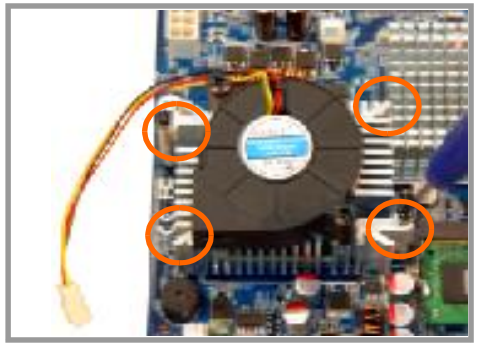
2. Remove the memory

Replacing Field Replaceable Units

Heatsink & FAN



1. Remove the CPU FAN cables.



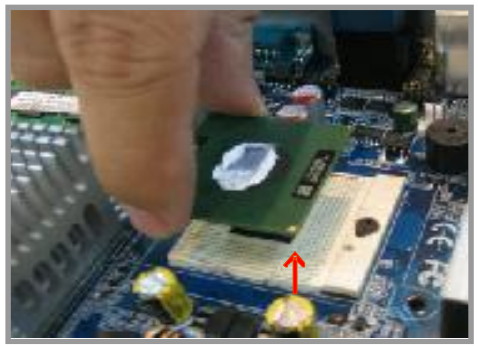
2. Remove the screws

3. Remove the heatsink & the fan

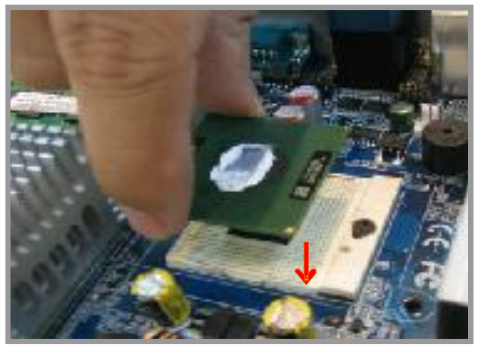
Replacing Field Replaceable Units

CPU

1. Turn the locking screw 180 degrees.



2. Remove the CPU.

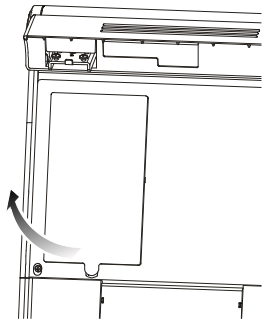


3. Replace the new CPU into the socket.

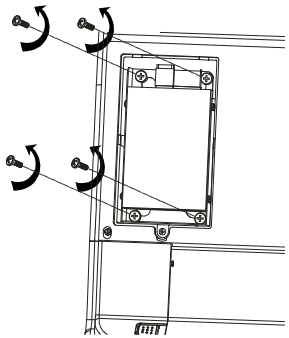
4. Turn the locking screw 180 degrees.

Replacing Field Replaceable Units

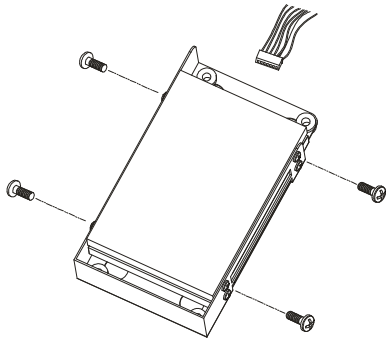
HDD



1. Remove the front cover



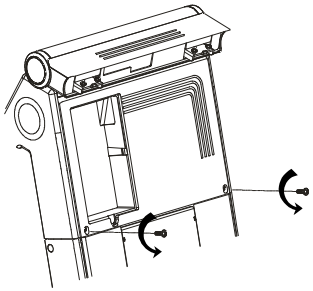
2. Remove the screw



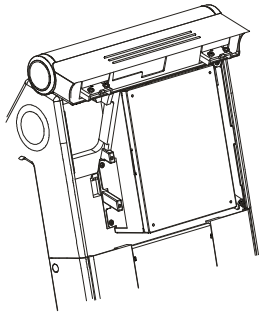
3. Remove the HDD cable

Replacing Field Replaceable Units

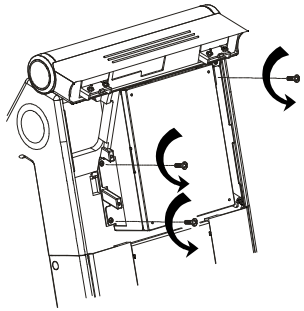
Power supply



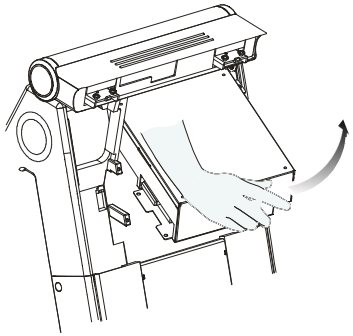
1. Loosen the 2 screws.



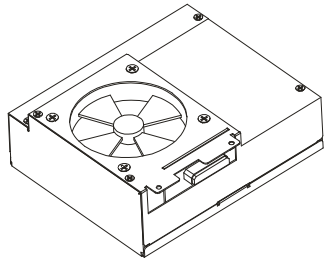
2. Remove the front cover



3. Loosen the 4 screws.



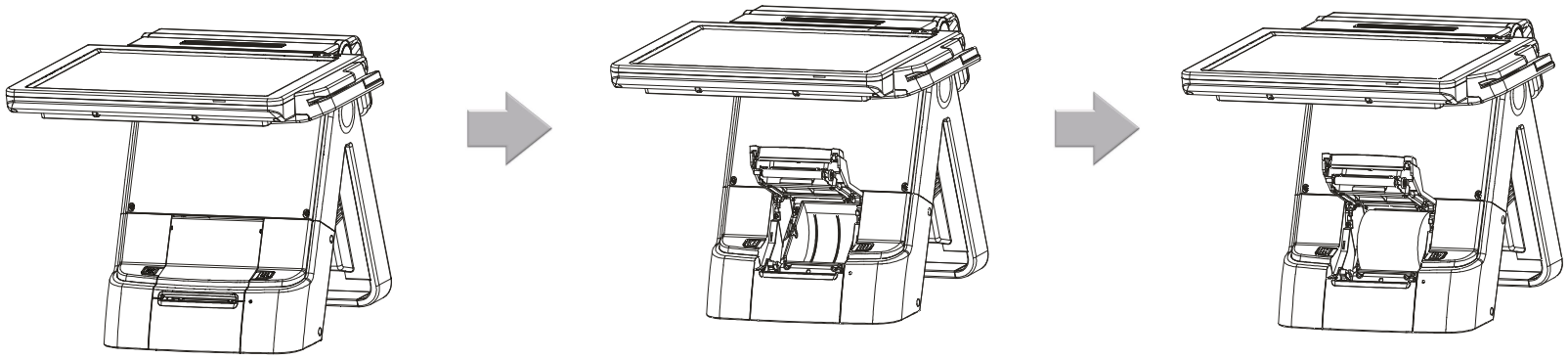
4. Slide up and remove the power supply



5. Remove power supply bracket

Replacing Field Replaceable Units

Roll paper



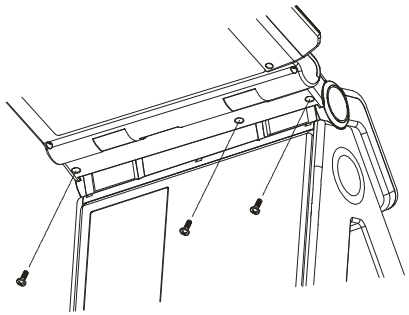
1. Life up front panel

2. Press "open" Button to open paper cover

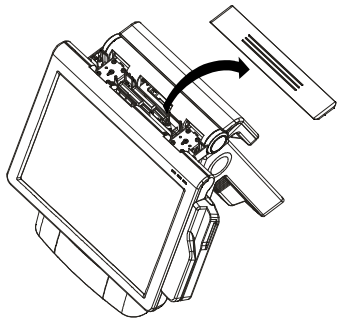
3. Place the paper

Replacing Field Replaceable Units

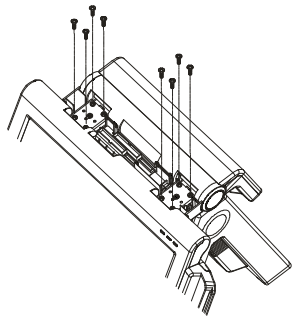
LCD Monitor



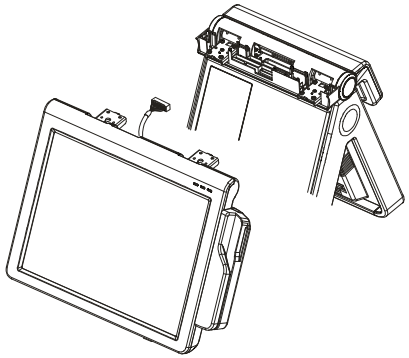
1. Remove the 3 screws



2. Remove the hinge cover



3. Remove the 8 screws



4. Remove the cabel and monitor

Reference to upgrade & Power supply

Reference to Upgrade

1. CPU: Intel C Mobile 1.5 GHz ~ 2.0 GHz
2. RAM: one DIMM up to 2GB DDR2 400/533 SO-DIMM
3. HDD: 2.5" SATA HDD 80GB above.

Power supply

Power Type	ATX
Operating	0 ~ 60° C (32 ~ 140° F)
Temperature Operating Humidity	0% ~ 90% relative humidity, non-condensing
Size (L x W)	6.69" x 6.69" (170 mm x 170 mm)
Weight	0.88 lbs (0.4 Kg)

Specification

Specification

Processor	Intel Celeron M 1.5 GHz (Max. 2.0 Ghz)	
Storage	SATA 2.5" HDD 80G	
Main Memory	512MB DDR up to 2GB	
Video	Intel 82915GHz GMCH integrated Graphics Media Accelerator 900 (Clone Mode Support, Dual Display Support)	
	15"TFT Color Display 1024×768	
Dispaly	15" Resistive type (Korean Brand)	
Touch Screen	Parallel port×1	Reserved for Internal Thermal Printer
Internal I/O	USB×2	Reserved for Touch Controller and EMV card
	PS2 Keyboard	Reserved for MSR Controller
	RS232-C	COM4 Reserved for VFD or 2nd Display
		COM5 & 6 with 9pin Header Interface
	RGB port	Reserved for 2nd Display
	LVDS	Main Display Uses
Rear I/O	USB x 2, PS/2 x 2 (mouse x 1, Keyboard x 1), LAN port, Audio port, Cash Drawer port, RS232-C port (COM1 ~ 3 with +5/12V power output on 9pin),	
	RGB connector(option), DVR port (option)	
Side I/O	USB x 3 Port , Parallel Port (Optional for model without internal printer) , Audio Speaker Port (Optional for Multimedia Display)	
	LAN Port (optional for Multimedia Display) , 24V Power output port (Optional for model without printer)	
Option	Magnetic Card Reader (2 track or 3 track support)	
	Smart Card Reader (EMV Level)	
	Internal thermal printer (203dpi, 200mm/sec, 80mm thermal paper support, SII mechanism)	
	2 x 20 VFD Customer Display	
	2 x 20 LCD Customer Display	
	12" 2nd Display : TFT LCD (800 X 600)	
	2nd HDD Storage	
	DVR Card (4Channel Support, 35FPS Max.)	
	Mini PCI for Wireless LAN	
	Mini PCI for VGA card	
	Multimedia Display Board (CF type Support)	
O/S	Windows 2000/XP/XPe, WEPOS, Linux	
Safety and EMI	FCC, CE, MIC	
Power Supply	AC 110~240V (Max. 230Watt)	
Product color	Glossy White or Dark Grey	
Dimensions	360(W) x 351(H) x 344(D) mm	
Weight	15Kg	